



White Bluff Steam Electric Station
Plant Performance Group

December 2, 1992

Inter-Office
Correspondence

TO: Mr. Mickey Cox
FROM: Dennis A. Wall
SUBJECT: 1992 Heat Rate Tests - White Bluff Units

Analysis of the subject tests has been completed, and the results are attached for your review. As in past years, the tests were conducted in accordance with the Entergy Heat Rate Test Procedure, and all co-owners were notified in advance so they could witness the tests. Only AECC chose to do so.

I believe the attached results are correct and representative of the present condition of these units. It is my recommendation that:

1. These results should be submitted to the System Operations Center, in order to update the economic dispatch curves for these units;
2. These results should be submitted to Mr. Alan Hardy, State Director of Bulk Power Marketing, for use in co-owner billing and related matters.

If you agree with my recommendations, please forward copies of the attachments to the parties mentioned above. If you disagree, please let me know so that we may otherwise resolve this issue. My telephone extension is 7021.

DAW/dw
Attachments

cc: Mr. Max Halbert
Mr. Rick Perryman
Dr. Dale Swindle
Mr. Ron House
Mr. Roger Lawson

A handwritten signature in cursive script, appearing to read "Dennis A. Wall".

An Entergy Company

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006032

1992 Heat Rate Tests' Information White Bluff SES Unit 1

Summer Corrected Net Generation	Heat Input
(MW)	(MMBtu/Hr)
144.14	2176.40
149.18	2227.80
236.26	3125.70
236.69	3142.80
333.00	3933.60
341.61	4037.90
429.51	4785.60
437.02	4791.30
519.98	5717.00
530.77	5721.40
607.67	6445.70
609.51	6417.30
707.54	7575.50
712.33	7398.60
792.43	8244.90
792.90	8369.70

Input/OutPut Equation:

$$\begin{aligned} \text{Heat Input} &= 1008.9797 + 8.406449 \times \text{NetMW} + 0.000983 \times \text{NetMW}^2 \\ &= \text{MMBtu/Hr} \end{aligned}$$

Incremental Heat Rate Equation:

$$\begin{aligned} \text{Incremental Heat Rate} &= (8.406449 + 0.001966 \times \text{NetMW}) \times 1000 \\ &= \text{Btu/Net Kwh} \end{aligned}$$

Net Heat Rate Equation:

$$\begin{aligned} \text{Net Heat Rate} &= (1008.9797 + 8.406449 \times \text{NetMW} + 0.000983 \times \text{NetMW}^2) \times 1000 / \text{NetMW} \\ &= \text{Btu/Net Kwh} \end{aligned}$$

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

1992 Heat Rate Tests' Information
White Bluff SES Unit 2

Summer Corrected Net Generation	Heat Input
(MW)	(MMBtu/Hr)
172.15	2315.30
175.64	2320.70
255.07	3019.50
255.88	3015.70
354.48	4010.00
360.93	4010.10
450.76	4902.00
454.69	4922.50
548.60	5769.90
550.80	5746.70
659.57	6853.40
666.80	6832.20
737.57	7530.90
748.18	7620.30
824.33	8528.00
829.40	8559.60

Input/OutPut Equation:

$$\text{Heat Input} = 811.6667 + 8.529974 \times \text{NetMW} + 0.000904 \times \text{NetMW}^2$$

$$= \text{MMBtu/Hr}$$

Incremental Heat Rate Equation:

$$\text{Incremental Heat Rate} = (8.529974 + 0.001808 \times \text{NetMW}) \times 1000$$

$$= \text{Btu/Net Kwh}$$

Net Heat Rate Equation:

$$\text{Net Heat Rate} = (811.6667 + 8.529974 \times \text{NetMW} + 0.000904 \times \text{NetMW}^2) \times 1000 / \text{NetMW}$$

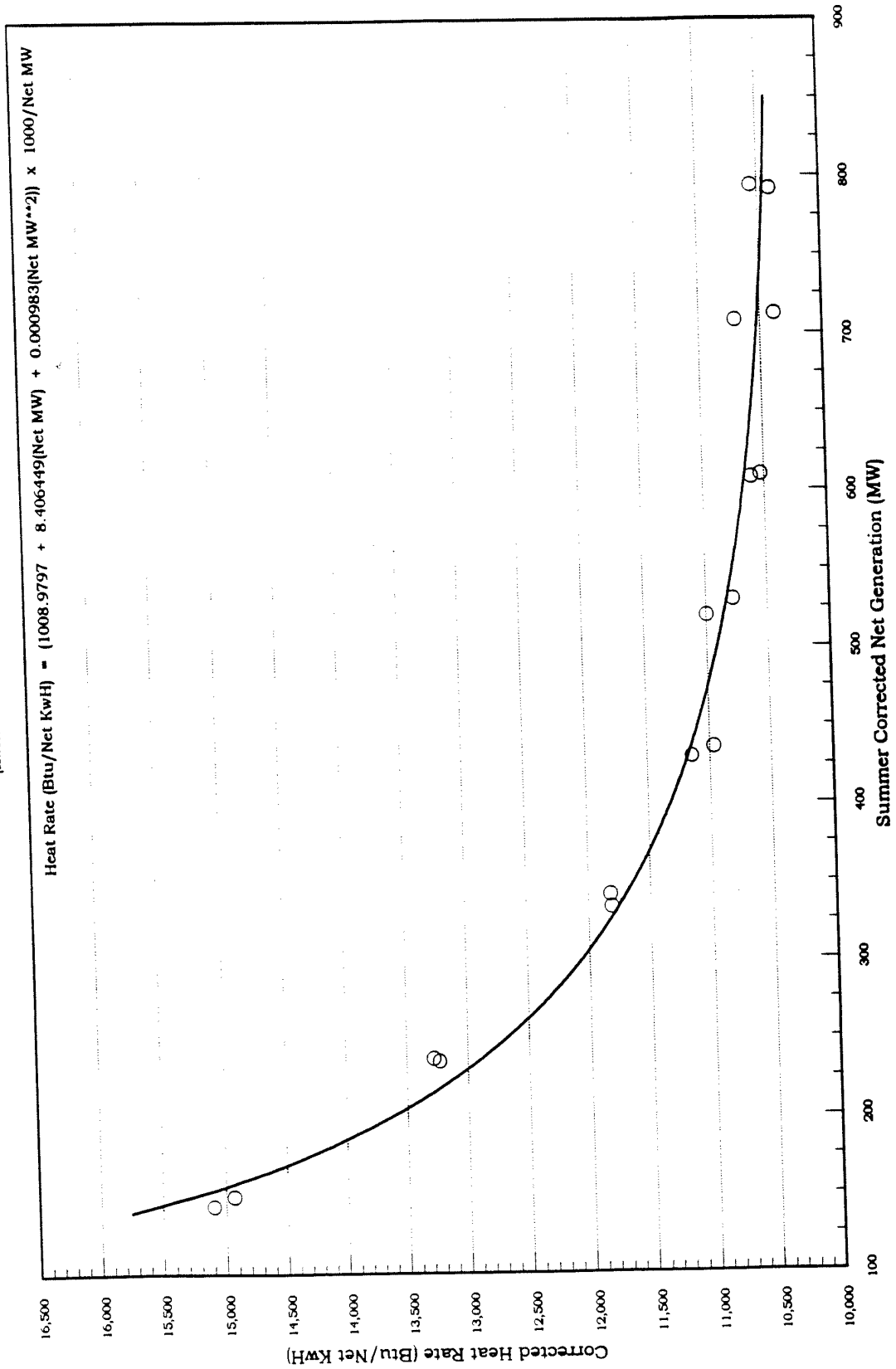
$$= \text{Btu/Net Kwh}$$

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

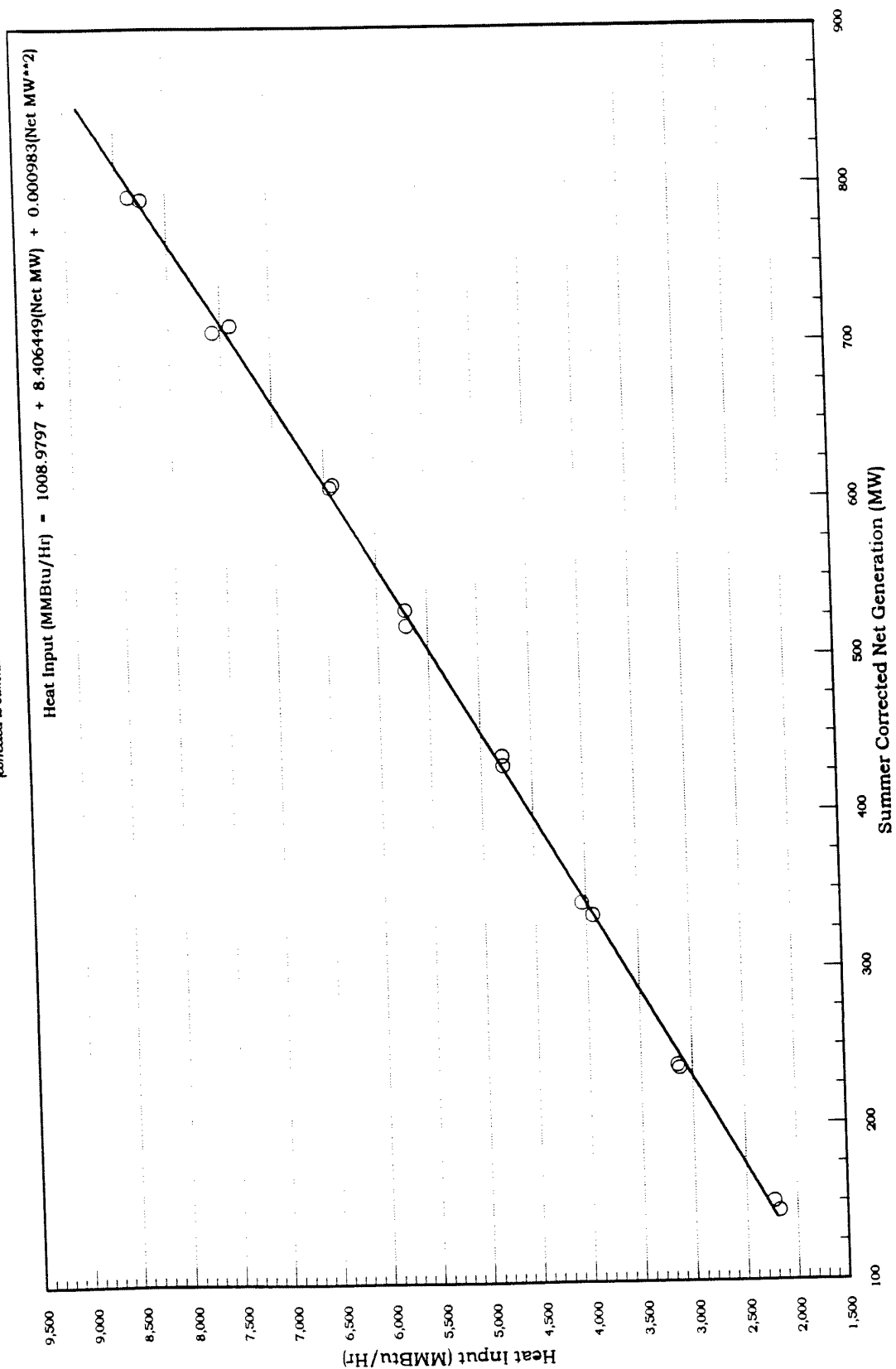
WB_00006034

White Bluff 1 1992 Heat Rate Test Information
(corrected to summer 76 F wet bulb)



Claim Withdrawn. Contains No CBI. 06/29/2016_YD

White Bluff 1 1992 Heat Rate Test Information
(corrected to summer 76 F wetbulb)

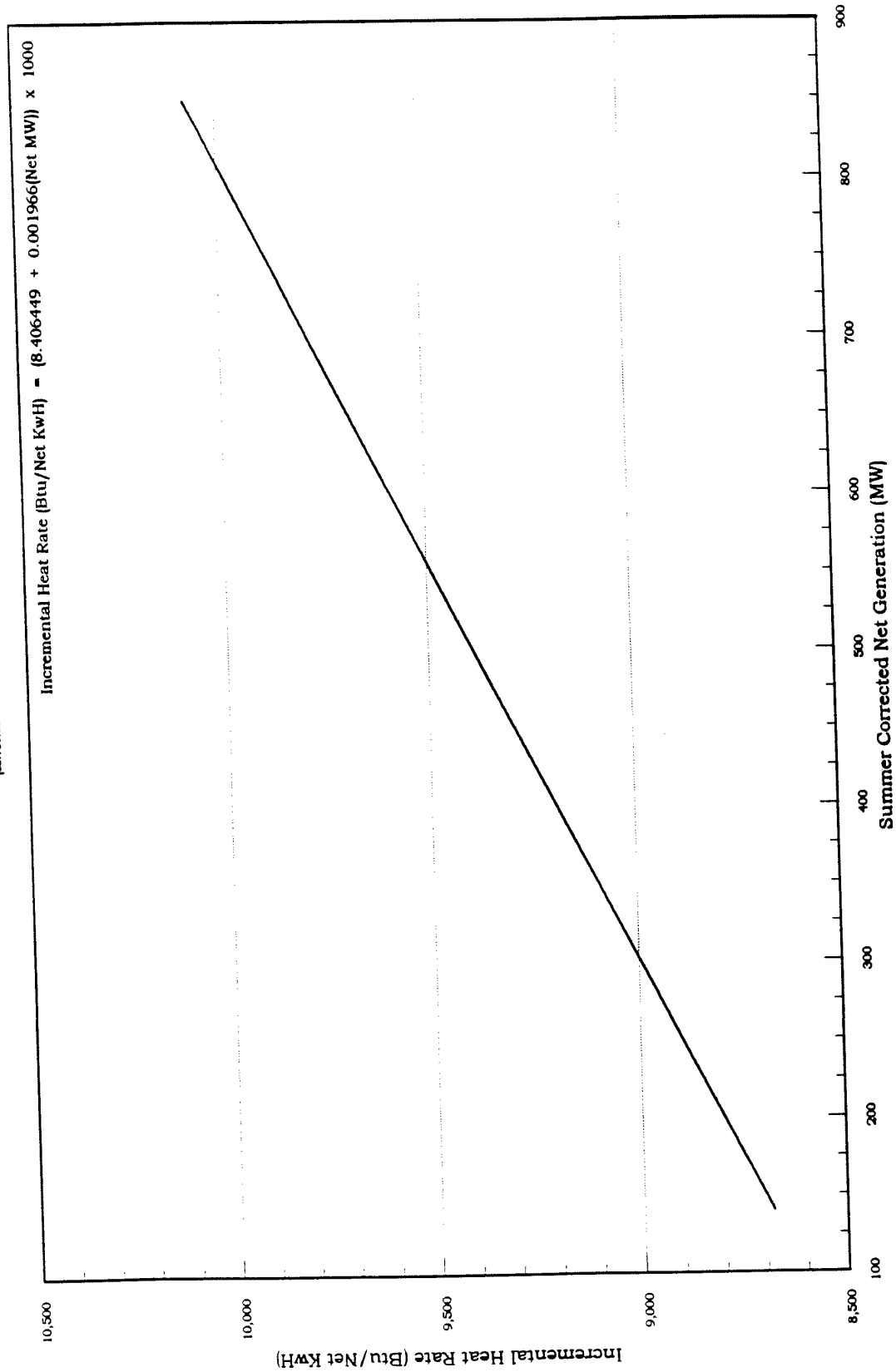


Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006036

White Bluff 1 1992 Heat Rate Test Information
 (corrected to summer 76 F use/bulb)

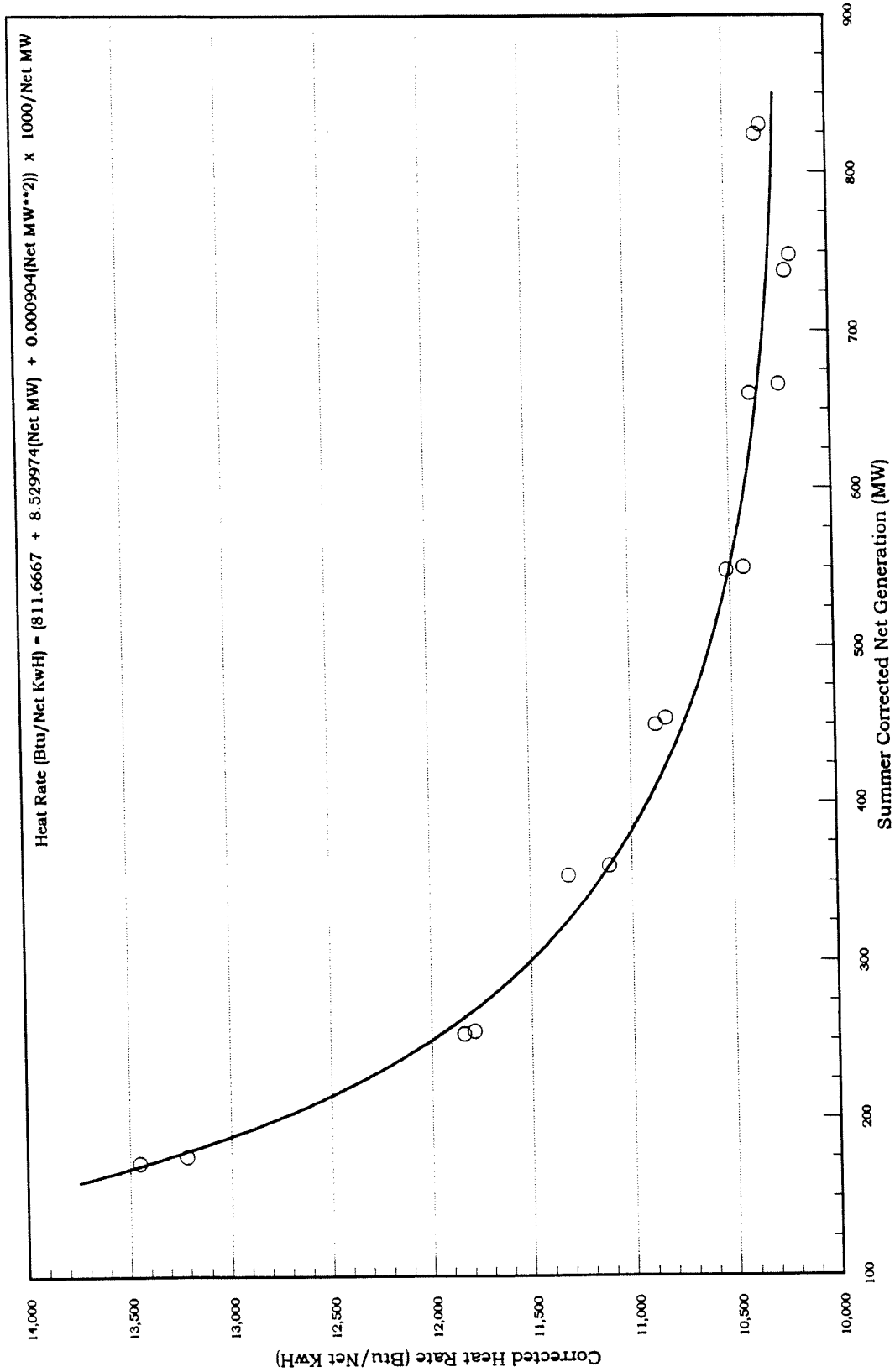


Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006037

White Bluff 2 1992 Heat Rate Test Information *(corrected to summer 76 Fuelbulb)*

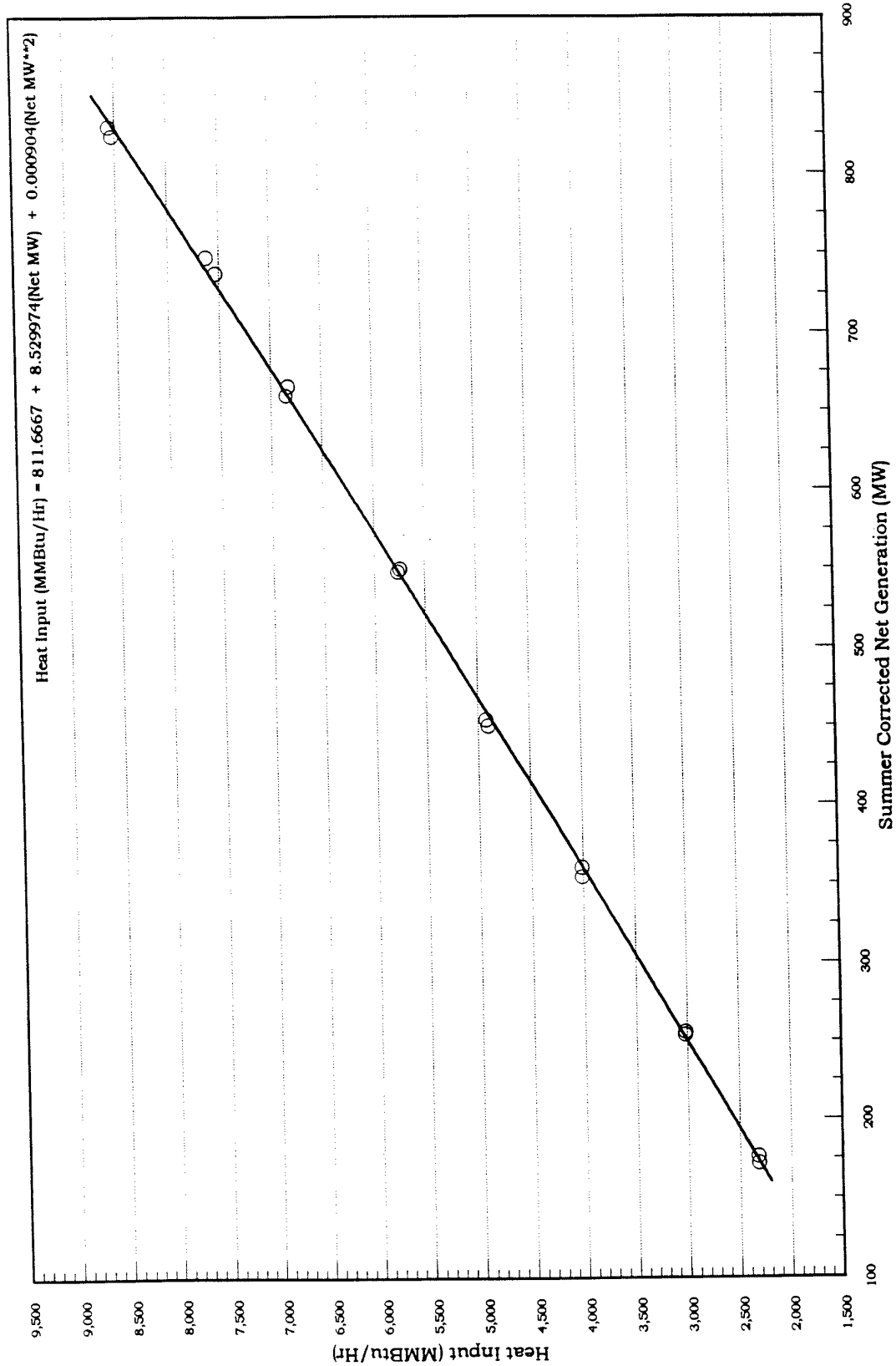


Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006038

White Bluff 2 1992 Heat Rate Test Information
 (corrected to summer 76 F wetbulb)

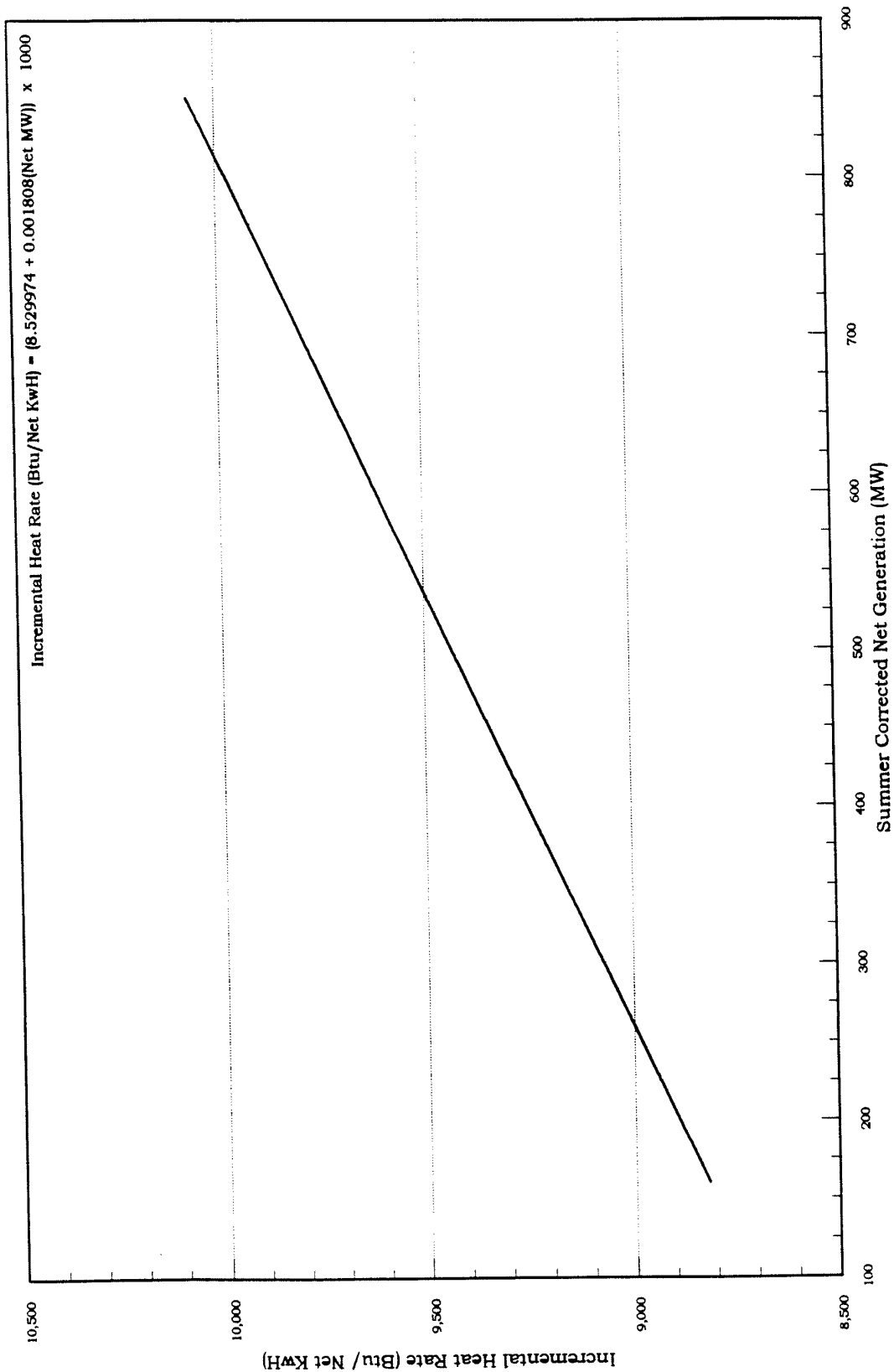


Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006039

White Bluff 2 1992 Heat Rate Test Information
(corrected to summer 76 F wetbulb)



Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006040



ENTERGY

June 28, 1993

Inter-Office
Correspondence

TO: Mr. Mickey Cox

FROM: Dennis A. Wall
Senior Engineer, Diagnostic Services Section

SUBJECT: **1993 Heat Rate Test Results - White Bluff Unit 1**

White Bluff Unit 1 was tested the week of May 16. The calculations and evaluation of results have just now been completed, and the results are attached for your review. For your convenience, 1992's results are also included. As always, these tests were run in an unbiased manner in accordance with the Entergy test procedure. Co-owners were notified prior to the tests, and engineers from the Arkansas Electric Co-operative Corporation were present for every test.

The significant difference between the 1992 and 1993 curves is primarily explained by the fact that the unit is operating with the "A" train of high pressure feedwater heaters isolated due to a tube leak in the 2A heater. This heater is scheduled for replacement during the Fall, 1993 outage, after which it would be appropriate to retest this unit with all heaters in service. **Until then, it is my recommendation that the 1993 results be implemented immediately for dispatch and co-owner billing purposes, since they best represent the present condition of the unit.**

If you need any additional information, or if you have any comments, please do not hesitate to contact me at telephone extension 7021.

DAW/dw
Attachments

cc: Mr. Max Halbert
Mr. Ron House
Mr. Art Gilreath
Mr. William Phillips
Mr. Alan Hardy
Mr. John Harrison
Mr. Gary Davis

Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006041

1993 Heat Rate Tests' Information
White Bluff SES Unit 1

Summer Corrected Net Generation	Heat Input
(MW)	(MMBtu/Hr)
150.12	2252.60
150.91	2245.50
239.13	3062.10
239.67	3079.10
333.87	3936.40
338.84	3894.90
439.54	4903.20
439.84	4856.50
545.93	5900.50
546.36	5897.10
633.85	6813.50
641.74	6853.00
736.30	7962.90
737.21	8047.20
784.42	8484.40
790.07	8559.20

Input/Output Equation:

$$\text{Heat Input} = 1103.9930 + 7.461433 \times \text{NetMW} + 0.002501 \times \text{NetMW}^2$$

= MMBtu/Hr

Incremental Heat Rate Equation:

$$\text{Incremental Heat Rate} = (7.461433 + 0.005002 \times \text{NetMW}) \times 1000$$

= Btu/Net Kwh

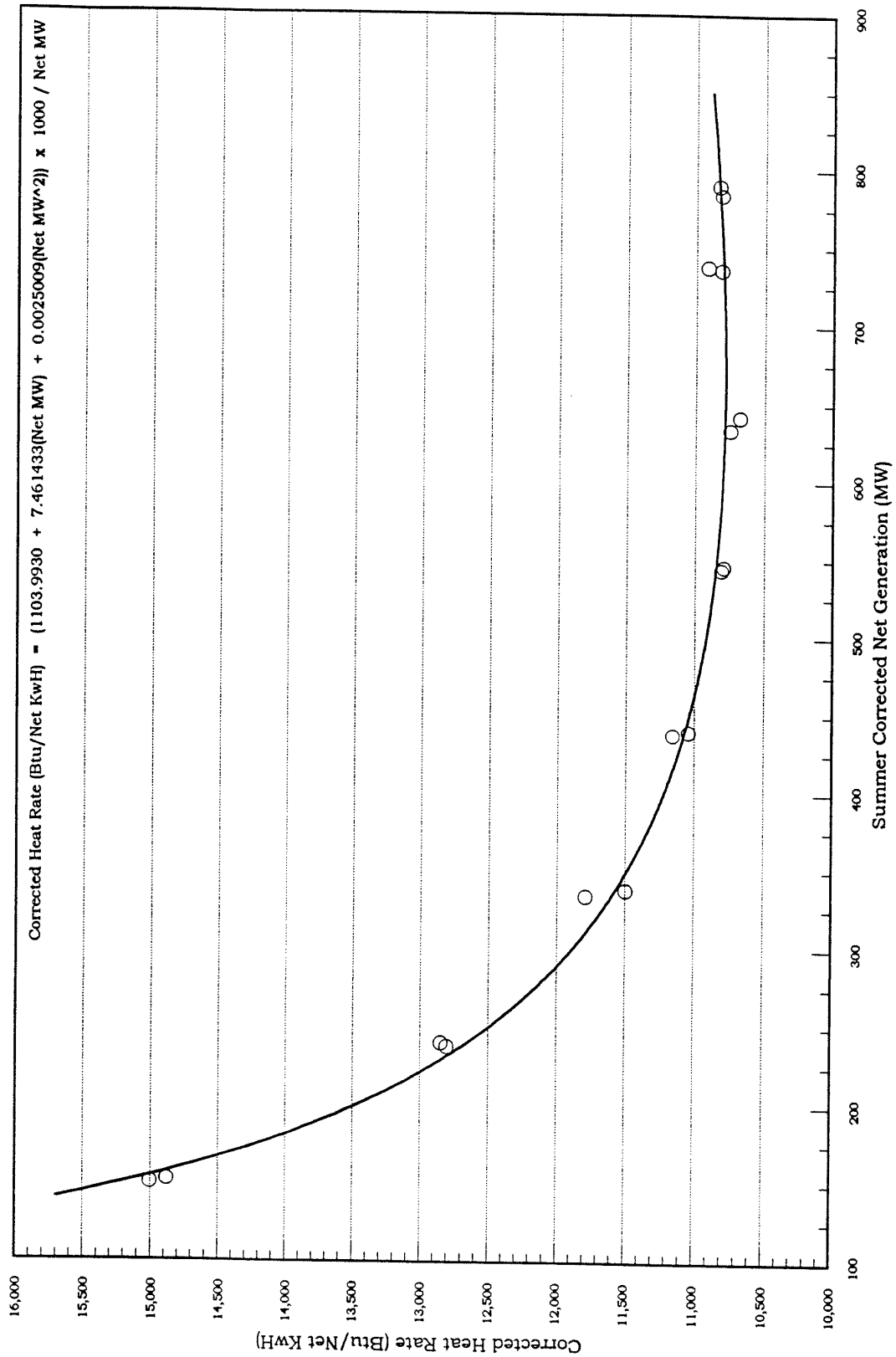
Net Heat Rate Equation:

$$\text{Net Heat Rate} = (1103.9930 + 7.461433 \times \text{NetMW} + 0.002501 \times \text{NetMW}^2) \times 1000 / \text{NetMW}$$

= Btu/Net Kwh

White Bluff 1 1993 Heat Rate Test Information

(corrected to summer 76 F wetbulb)



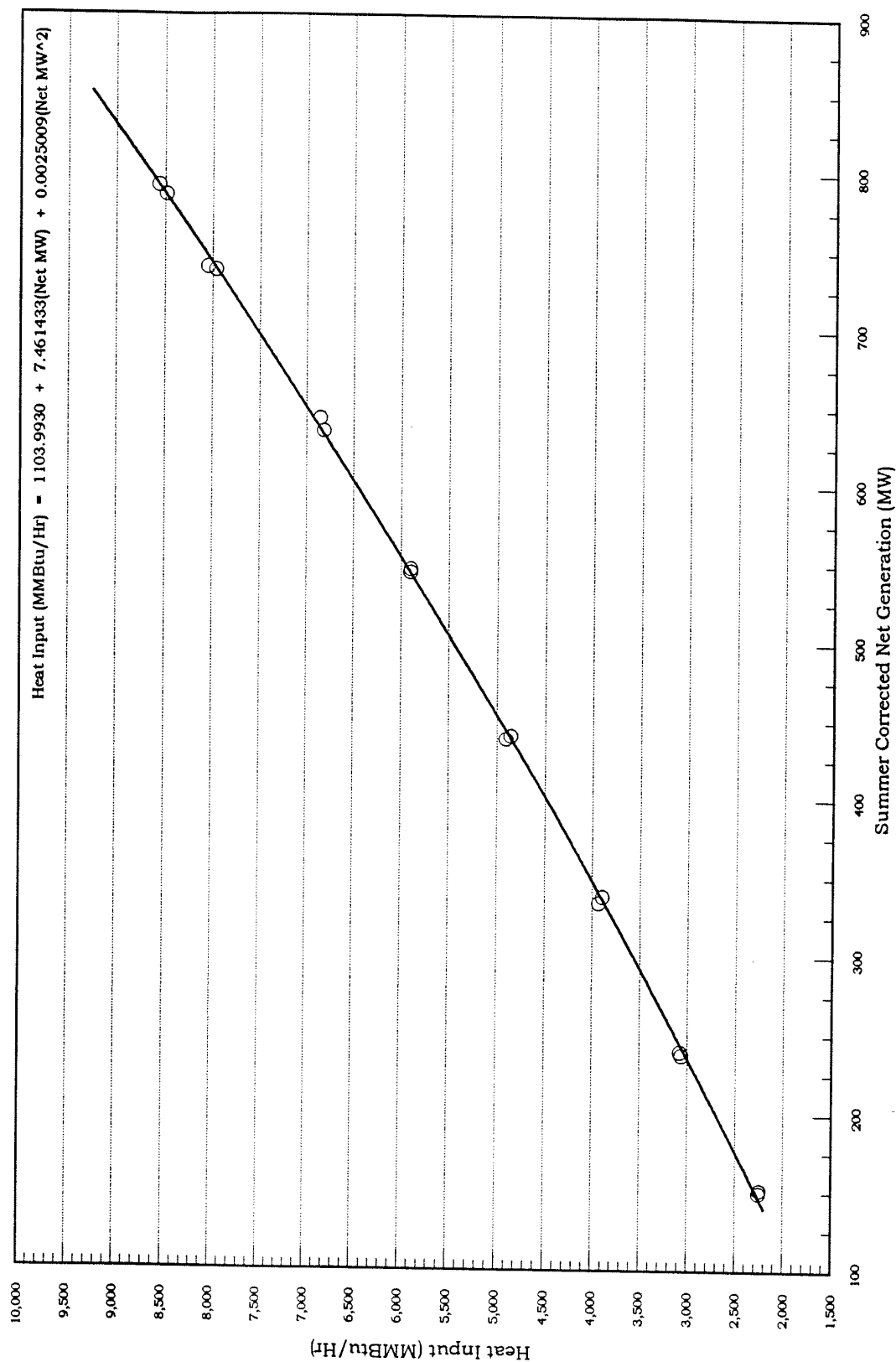
Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006043

White Bluff 1 1993 Heat Rate Test Information

(corrected to summer 76 F wetbulb)



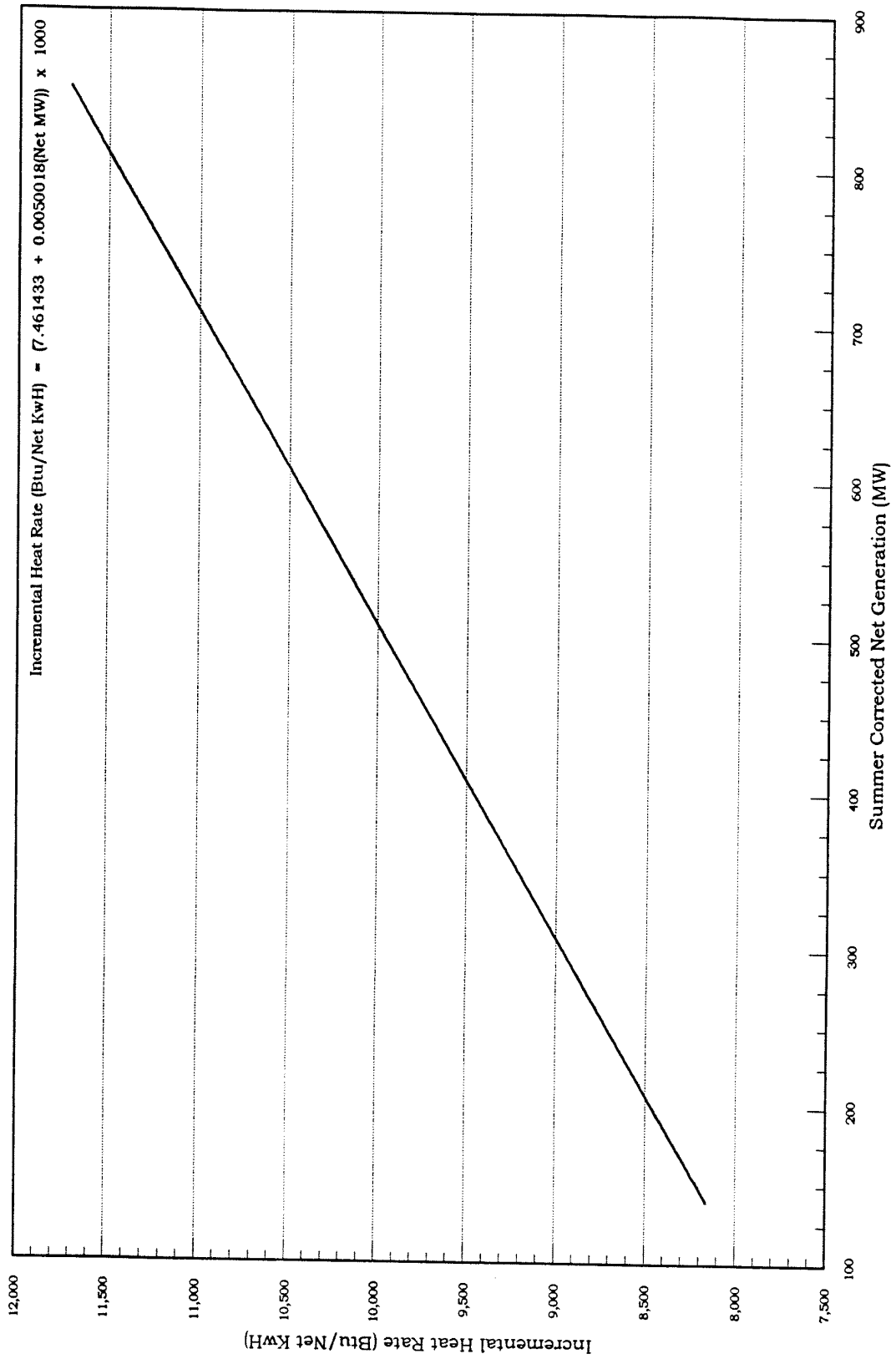
Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006044

White Bluff 1 1993 Heat Rate Test Information

(corrected to summer 76 F wetbulb)



Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006045



ENTERGY

August 16, 1993

Inter-Office
Correspondence

TO: Mr. Mickey Cox

FROM: Dennis A. Wall
Senior Engineer, Diagnostic Services Section

SUBJECT: 1993 Heat Rate Test Results - White Bluff Unit 2

White Bluff Unit 2 was tested the week of June 21. One test load was repeated on July 14. The calculations, evaluation, and review of results have now been completed, and the results are attached for your review. For your convenience, a graphical comparison with 1992's results are also included. As always, these tests were run in an unbiased manner in accordance with the Entergy test procedure. Co-owners were notified prior to the tests, and engineers from the Arkansas Electric Co-operative Corporation were present.

Although slight, there is some difference between the 1992 and 1993 curves. **It is my recommendation that the 1993 results be implemented immediately for dispatch and co-owner billing purposes, since they best represent the present condition of the unit.**

If you need any additional information, or if you have any comments, please do not hesitate to contact me at telephone extension 7021.

DAW/dw
Attachments

cc: Mr. Max Halbert
Mr. Ron House
Mr. Art Gilreath
Mr. William Phillips
Mr. Alan Hardy
Mr. John Harrison
Mr. Gary Davis

Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006046

1993 Heat Rate Tests' Information
White Bluff SES Unit 2

Summer Corrected Net Generation	Heat Input
(MW)	(MMBtu/Hr)
164.96	2253.00
165.97	2245.10
255.32	3007.00
260.63	3044.70
364.01	4050.50
366.32	4068.70
462.78	4941.80
465.00	4920.50
558.13	5830.70
558.64	5815.80
654.56	6734.00
654.81	6729.70
753.60	7798.60
756.57	7809.60
811.60	8329.10
814.39	8338.20

Input/Output Equation:

$$\text{Heat Input} = 842.7447 + 8.268214 \times \text{NetMW} + 0.001187 \times \text{NetMW}^2$$

= MMBtu/Hr

Incremental Heat Rate Equation:

$$\text{Incremental Heat Rate} = (8.268214 + 0.002374 \times \text{NetMW}) \times 1000$$

= Btu/Net Kwh

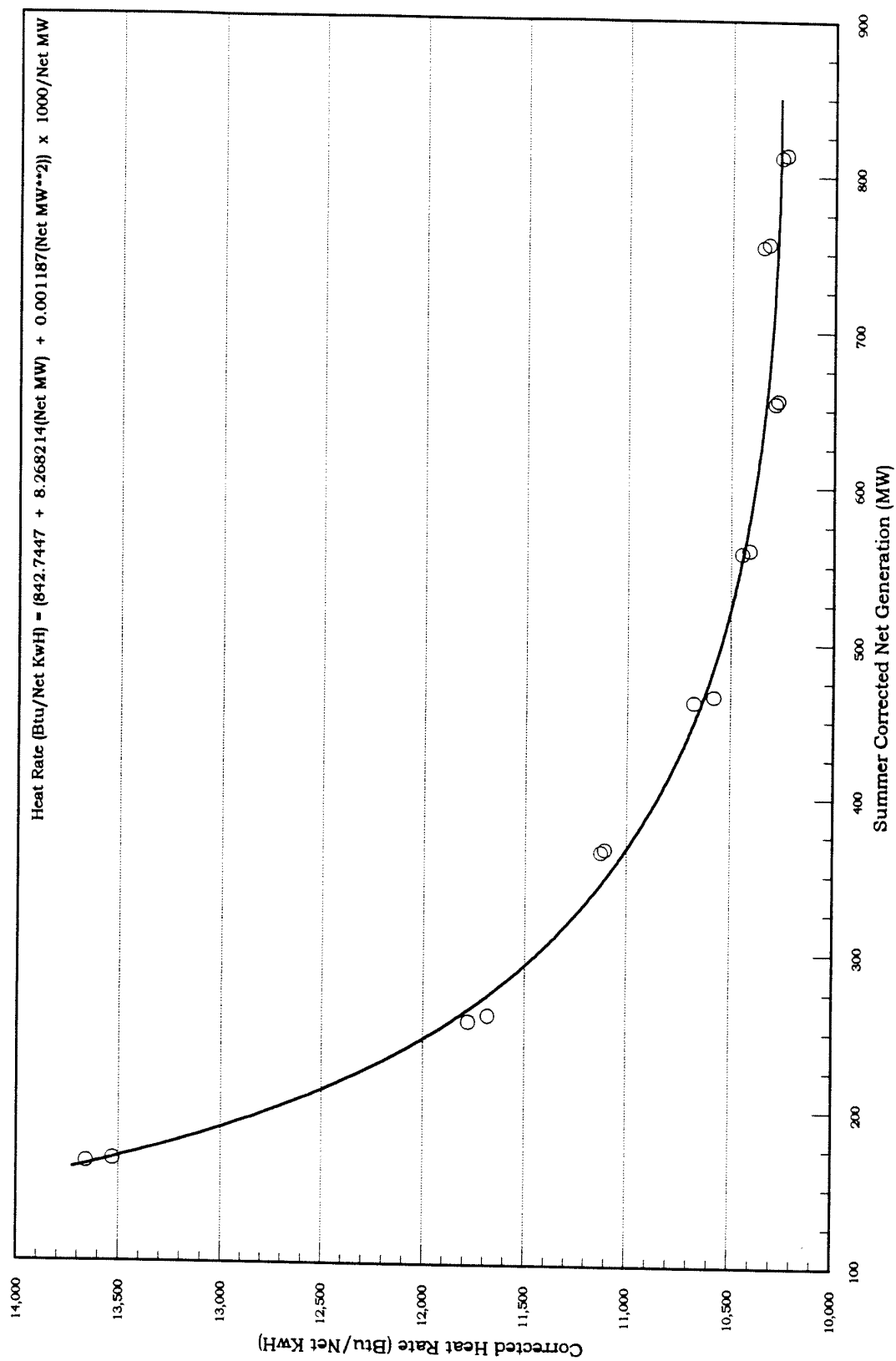
Net Heat Rate Equation:

$$\text{Net Heat Rate} = (842.7447 + 8.268214 \times \text{NetMW} + 0.001187 \times \text{NetMW}^2) \times 1000 / \text{NetMW}$$

= Btu/Net Kwh

White Bluff 2 1993 Heat Rate Test Information

(corrected to summer 76 F fuel/hub)



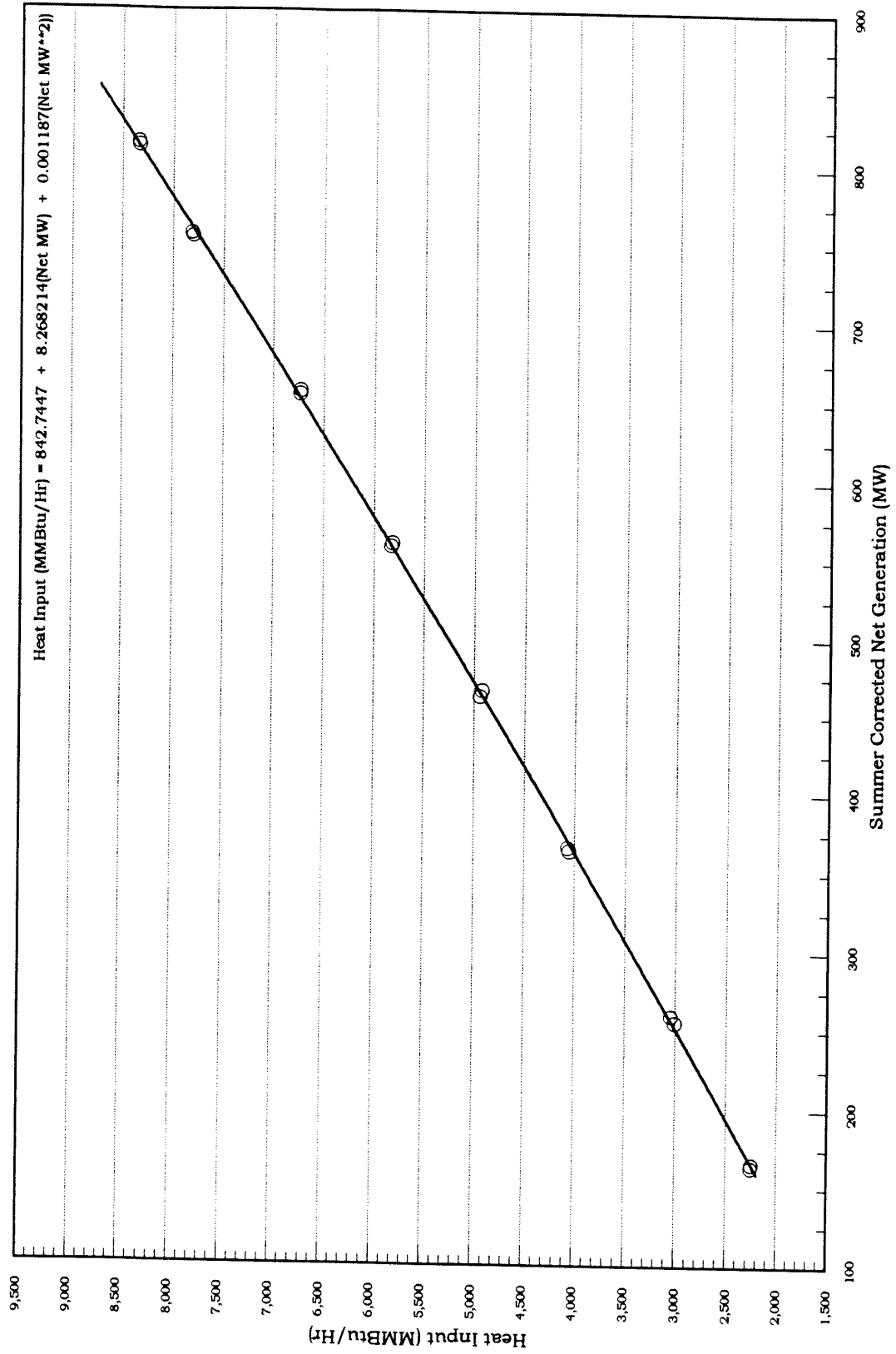
Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006048

White Bluff 2 1993 Heat Rate Test Information

(corrected to summer 76 F wetbulb)

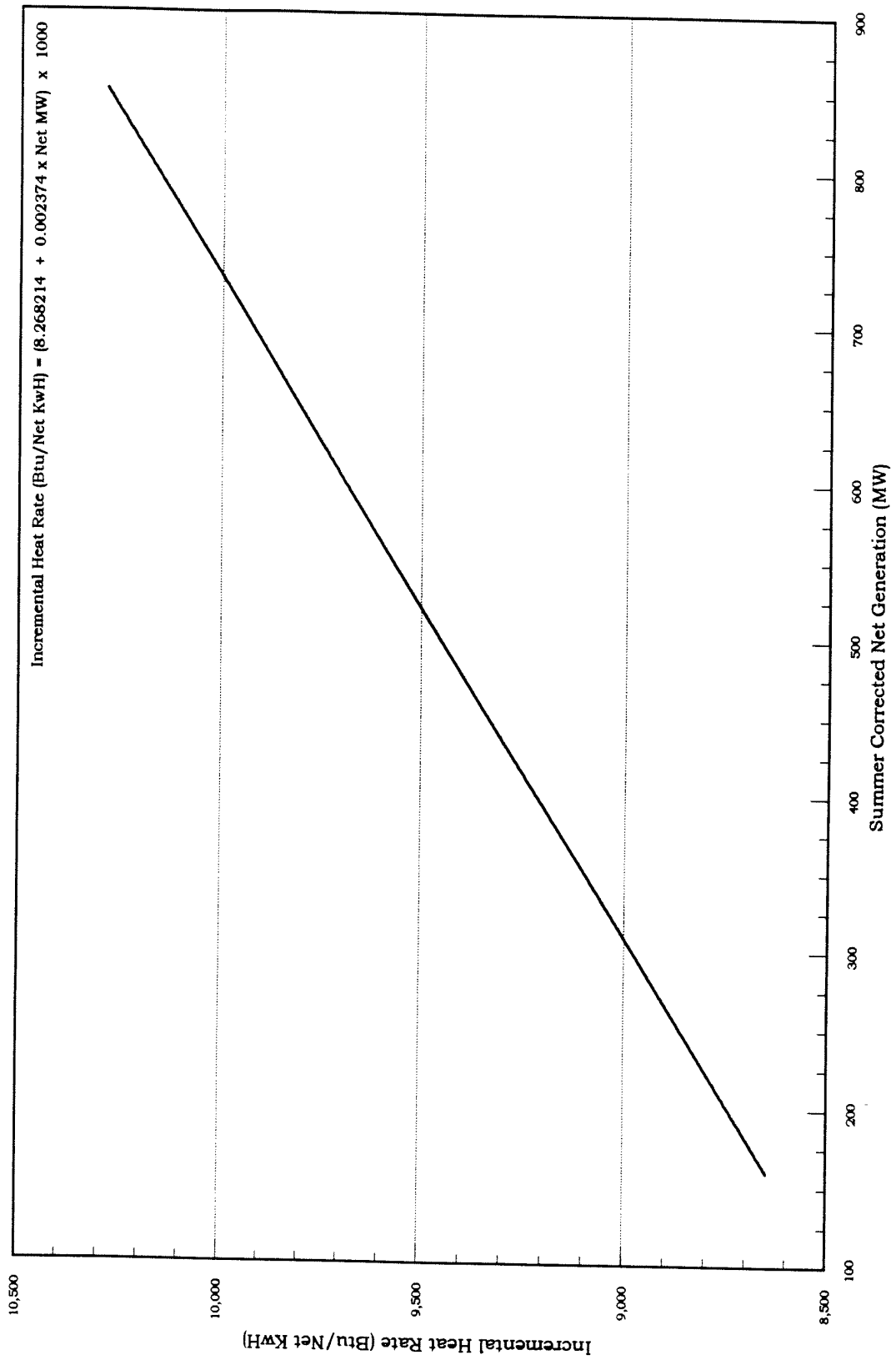


Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006049

White Bluff 2 1993 Heat Rate Test Information
 (corrected to summer 76 F wetbulb)



Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006050



ENTERGY

January 16, 1995

Inter-Office
Correspondence

TO: Mr. Mike Bakewell
FROM: Ron House
SUBJECT: 1994 Heat Rate Tests - White Bluff Plant

White Bluff Unit Heat Rate tests were conducted in August and September of last year. An analysis of the tests and their results is attached for your review. As in past years, the tests were conducted in an unbiased manner and in accordance with the Entergy Heat Rate Test Procedure. All White Bluff co-owners were notified in advance so they could witness the tests. Engineers from Arkansas Electric Co-operative were present and participated in the testing.

Please note that there are some differences between the 1993 and 1994 test results:

Unit 1 had a slight overall improvement over 1993. This is primarily due to cooling tower repairs performed in the 1994 spring outage. However, the unit heat rate is still considerably higher than desired. The "B" train of high pressure heaters remains isolated due to tube failures in the 2"B" heater. This heater will be replaced during the 1995 spring boiler outage. The replacement will significantly improve unit heat rate and it would be appropriate then to retest the unit with all heaters in service.

Unit 2 had a notable degradation from 1993. The two primary causes are 1) a plugged air pre-heater and 2) high pressure heater train "A" being isolated due to tube failures in the 2"A" high pressure heater. A number of repairs have been made to the feedwater heater with subsequent additional failures. It remains out of service at this time. Heat rate will be impacted by these conditions, along with a potential limit to unit capacity during summer operation.

I believe the attached results are correct and representative of the present condition of the units. It is my recommendation that these results be implemented for dispatch and co-owner billing purposes. Please pardon the delay in completing this task. It is possible that the co-owners will wish to back calculate fuel costs for November and December. If you need any additional information or if you have any comments, please do not hesitate to contact me at extension 7009.

RHH/rh
w/Attachments

cc: Mr. Henry Thompson A-TCBY-23-G
Mr. David Harris AECC
Mr. Art Gilreath T-EP-16
Mr. William C. Phillips ... A-SOC/PB
Mr. Lynn Sanders
Mr. Rick Perryman
Mr. Tom Odenthall
Mr. Nate Stephens
Mr. Jim Booth
Mr. Mike Charles
Mr. Wayne Webb
Mr. Pat Klepper A-ISES

Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006051

1994 Heat Rate Tests' Information White Bluff SES Unit 1

Summer Corrected Net Generation	Heat Input
(MW)	(MMBtu/Hr)
159.76	2312.70
160.39	2386.70
243.34	3143.20
249.42	3158.20
340.75	3972.90
344.93	3982.90
455.18	4895.80
446.57	4939.00
547.84	5946.00
555.13	5915.50
636.64	6786.40
648.98	6824.00
754.00	8031.10
755.00	8010.20
791.13	8225.90
785.33	8266.00

Input/OutPut Equation:

$$\begin{aligned} \text{Heat Input} &= 1058.9276 + 7.951202 \times \text{NetMW} + 0.001564 \times \text{NetMW}^2 \\ &= \text{MMBtu/Hr} \end{aligned}$$

Incremental Heat Rate Equation:

$$\begin{aligned} \text{Incremental Heat Rate} &= (7.951202 + 0.003128 \times \text{NetMW}) \times 1000 \\ &= \text{Btu/Net KwH} \end{aligned}$$

Net Heat Rate Equation:

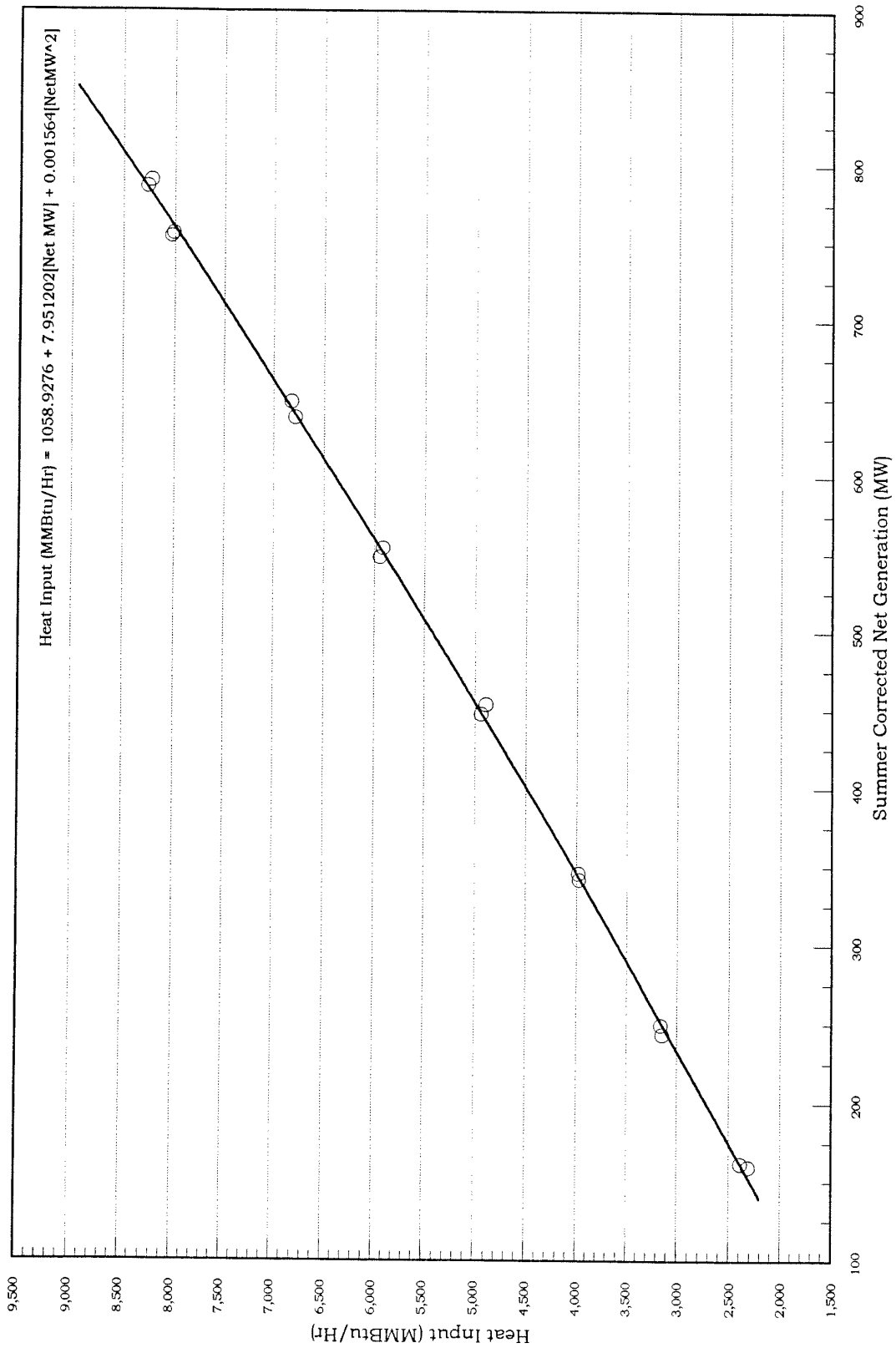
$$\begin{aligned} \text{Net Heat Rate} &= (1058.9276 + 7.951202 \times \text{NetMW} + 0.001564 \times \text{NetMW}^2) \times 1000 / \text{NetMW} \\ &= \text{Btu/Net KwH} \end{aligned}$$

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006052

White Bluff 1 - 1994 Heat Rate Test Information
(corrected to summer 76 F wetbulb)



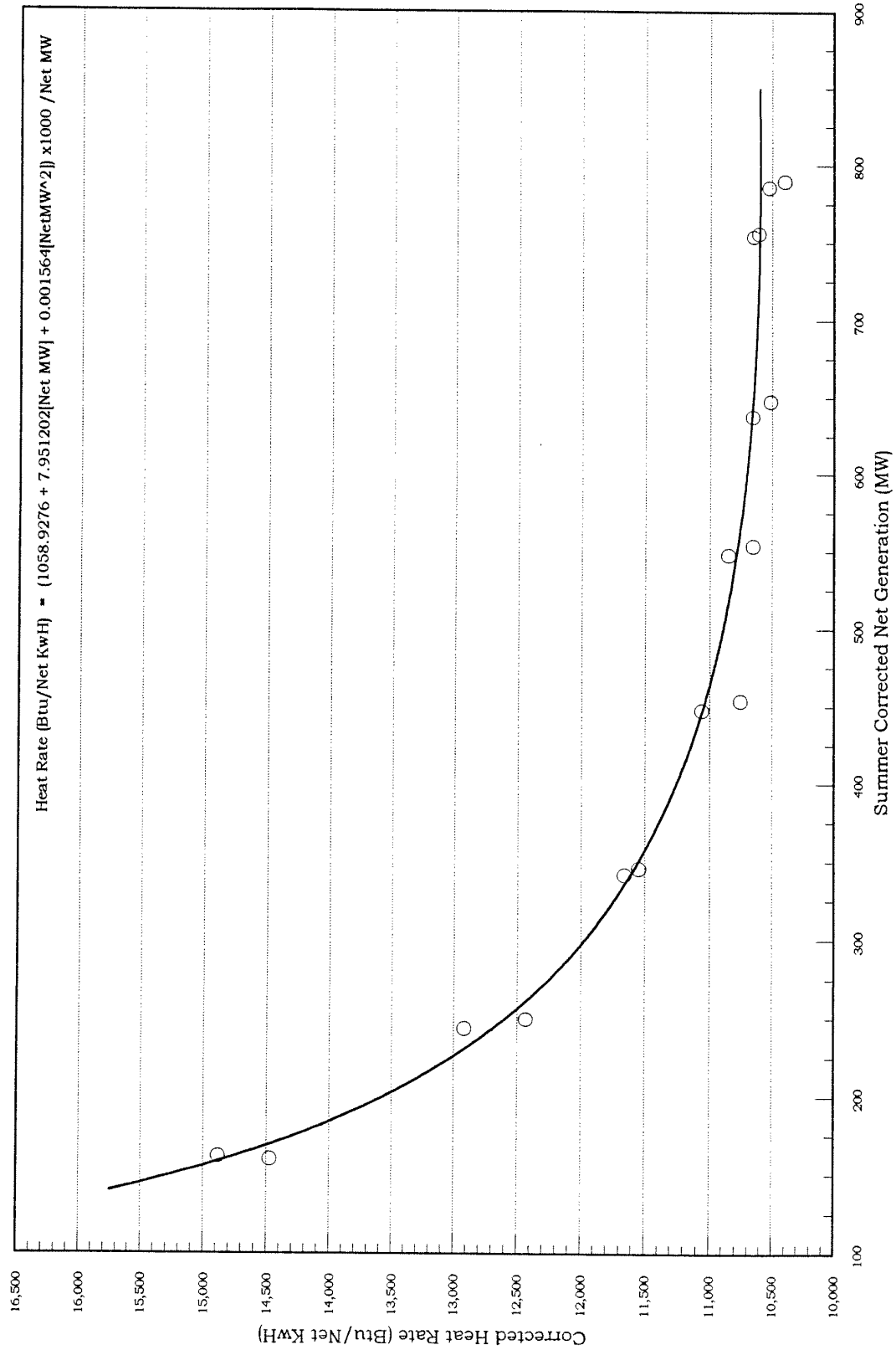
Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006053

White Bluff 1 - 1994 Heat Rate Test Information

(corrected to summer 76 Fuel/bulb)

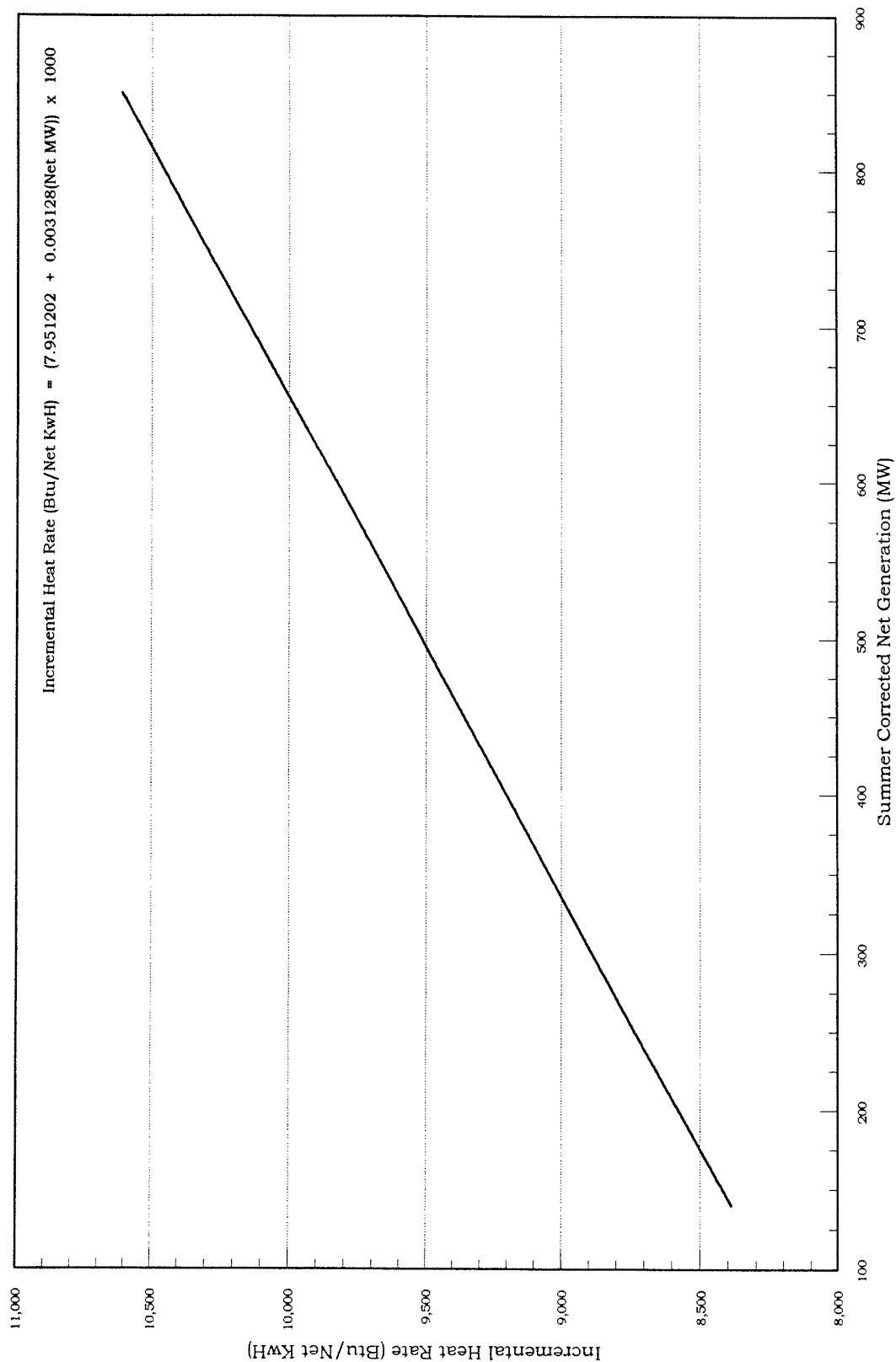


Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006054

White Bluff 1 - 1994 Heat Rate Test Information
(corrected to summer 76 F wetbulb)



Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006055

01-10-1995 11:53:36

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 160MW 1ST HR

MEASURED TEST INPUTS FROM FILE wb1hr94a.160

THE AVERAGE GROSS GENERATION IS.....	192.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	27.80	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	1.84	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	95.36	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	86.48	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	67.80	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	69.70	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	89.97	PCT
THE AVERAGE COAL FLOW IS.....	265700.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8704.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	8.88	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	86.44	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	91.60	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	91.64	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.14	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1250521.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-14.89	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-12.83	%
BPCHG =	2.42	
KWCHG =	-2.37	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.023651	%
THE CORRECTED GROSS GENERATION IS.....	187.56	MWe
THE CORRECTED NET GENERATION IS.....	159.76	MWe
THE UNCORRECTED NET HEAT RATE IS.....	14084.4	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	14475.4	BTU/NKW
THE TOTAL HEAT INPUT IS.....	2312.7	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006056

01-10-1995 12:12:41

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 160MW 2ND HR

MEASURED TEST INPUTS FROM FILE WB1HR94B.160

THE AVERAGE GROSS GENERATION IS.....	193.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	27.70	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	1.80	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	94.65	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	85.75	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	67.10	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	68.80	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	90.75	PCT
THE AVERAGE COAL FLOW IS.....	271900.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8778.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	8.90	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	85.77	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	91.55	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	91.54	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.14	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1252515.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-15.14	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-12.87	%
BPCHG =	2.68	
KWCHG =	-2.61	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.026084	%
THE CORRECTED GROSS GENERATION IS.....	188.09	MWe
THE CORRECTED NET GENERATION IS.....	160.39	MWe
THE UNCORRECTED NET HEAT RATE IS.....	14438.8	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	14880.5	BTU/NKW
THE TOTAL HEAT INPUT IS.....	2386.7	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

01-10-1995 11:54:11

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 250MW 1ST HR

MEASURED TEST INPUTS FROM FILE wb1hr94a.250

THE AVERAGE GROSS GENERATION IS.....	275.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	27.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.09	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	99.61	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	88.55	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	69.20	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	74.90	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	75.36	PCT
THE AVERAGE COAL FLOW IS.....	354400.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8869.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	11.06	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	88.03	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	92.63	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	93.14	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.39	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1804155.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-11.27	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-9.71	%
BPCHG =	1.75	
KWCHG =	-1.72	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.017229	%
THE CORRECTED GROSS GENERATION IS.....	270.34	MWe
THE CORRECTED NET GENERATION IS.....	243.34	MWe
THE UNCORRECTED NET HEAT RATE IS.....	12674.1	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	12916.7	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3143.2	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006058

01-10-1995 11:54:27

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 250MW 2ND HR

MEASURED TEST INPUTS FROM FILE wb1hr94b.250

THE AVERAGE GROSS GENERATION IS.....	282.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	28.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.06	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	99.12	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	87.92	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	69.10	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	74.30	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	77.15	PCT
THE AVERAGE COAL FLOW IS.....	357500.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8834.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	11.20	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	87.96	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	92.54	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	92.49	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.35	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1844081.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-11.28	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-9.80	%
BPCHG =	1.68	
KWCHG =	-1.65	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.016499	%
THE CORRECTED GROSS GENERATION IS.....	277.42	MWe
THE CORRECTED NET GENERATION IS.....	249.42	MWe
THE UNCORRECTED NET HEAT RATE IS.....	12433.7	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	12661.8	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3158.2	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006059

01-10-1995 11:54:39

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 350MW 1ST HR

MEASURED TEST INPUTS FROM FILE wb1hr94a.350

THE AVERAGE GROSS GENERATION IS.....	375.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	28.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.30	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	102.85	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	88.81	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	67.30	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	73.50	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	72.86	PCT
THE AVERAGE COAL FLOW IS.....	450800.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8813.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	14.04	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	87.30	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.00	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	94.52	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.71	IN-HG
THE TURBINE THROTTLE FLOW IS.....	2435114.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-8.47	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-6.89	%
BPCHG =	1.72	
KWCHG =	-1.70	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.016957	%
THE CORRECTED GROSS GENERATION IS.....	368.75	MWe
THE CORRECTED NET GENERATION IS.....	340.75	MWe
THE UNCORRECTED NET HEAT RATE IS.....	11449.3	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	11659.4	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3972.9	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006060

01-10-1995 11:54:59

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 350MW 2ND HR

MEASURED TEST INPUTS FROM FILE wb1hr94b.350

THE AVERAGE GROSS GENERATION IS.....	380.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	29.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.26	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	102.23	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	88.39	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	66.90	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	72.10	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	76.42	PCT
THE AVERAGE COAL FLOW IS.....	450200.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8847.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	13.84	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	87.10	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	92.75	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	94.05	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.66	IN-HG
THE TURBINE THROTTLE FLOW IS.....	2462154.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-8.55	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-7.04	%
BPCHG =	1.65	
KWCHG =	-1.62	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.016227	%
THE CORRECTED GROSS GENERATION IS.....	373.93	MWe
THE CORRECTED NET GENERATION IS.....	344.93	MWe
THE UNCORRECTED NET HEAT RATE IS.....	11347.3	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	11547.0	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3982.9	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006061

01-10-1995 11:55:14

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 450MW 1ST HR

MEASURED TEST INPUTS FROM FILE wb1hr94a.450

THE AVERAGE GROSS GENERATION IS.....	494.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	33.10	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.49	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	105.56	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	88.46	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	67.90	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	75.77	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	67.29	PCT
THE AVERAGE COAL FLOW IS.....	548300.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8929.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	17.10	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	88.35	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.58	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	93.69	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.89	IN-HG
THE TURBINE THROTTLE FLOW IS.....	3167969.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-6.17	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-5.06	%
BPCHG =	1.19	
KWCHG =	-1.17	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.011717	%
THE CORRECTED GROSS GENERATION IS.....	488.28	MWe
THE CORRECTED NET GENERATION IS.....	455.18	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10622.2	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10755.7	BTU/NKW
THE TOTAL HEAT INPUT IS.....	4895.8	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006062

01-10-1995 11:55:31

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 450MW 2ND HR

MEASURED TEST INPUTS FROM FILE wb1hr94b.450

THE AVERAGE GROSS GENERATION IS.....	482.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	30.90	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.57	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	106.65	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	90.61	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	70.40	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	79.17	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	65.43	PCT
THE AVERAGE COAL FLOW IS.....	552400.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8941.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	16.04	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	89.65	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.66	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	94.61	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.88	IN-HG
THE TURBINE THROTTLE FLOW IS.....	3101979.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-6.08	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-5.18	%
BPCHG =	0.96	
KWCHG =	-0.95	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.009491	%
THE CORRECTED GROSS GENERATION IS.....	477.47	MWe
THE CORRECTED NET GENERATION IS.....	446.57	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10948.8	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	11059.9	BTU/NKW
THE TOTAL HEAT INPUT IS.....	4939.0	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006063

01-10-1995 11:55:42

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 550MW 1ST HR

MEASURED TEST INPUTS FROM FILE wb1hr94a.550

THE AVERAGE GROSS GENERATION IS.....	587.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	35.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.85	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	110.25	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	89.98	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	70.30	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	76.50	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	73.97	PCT
THE AVERAGE COAL FLOW IS.....	678300.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8766.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	20.27	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	89.55	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.31	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	93.74	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.16	IN-HG
THE TURBINE THROTTLE FLOW IS.....	3791864.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-4.22	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-3.53	%
BPCHG =	0.72	
KWCHG =	-0.71	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.007130	%
THE CORRECTED GROSS GENERATION IS.....	582.84	MWe
THE CORRECTED NET GENERATION IS.....	547.84	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10771.7	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10853.4	BTU/NKW
THE TOTAL HEAT INPUT IS.....	5946.0	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006064

01-10-1995 11:55:59

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 550MW 2ND HR

MEASURED TEST INPUTS FROM FILE wb1hr94b.550

THE AVERAGE GROSS GENERATION IS.....	590.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	32.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.91	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	110.98	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	92.26	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	72.30	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	81.10	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	66.12	PCT
THE AVERAGE COAL FLOW IS.....	673900.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8778.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	18.72	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	91.18	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.75	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	94.83	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.13	IN-HG
THE TURBINE THROTTLE FLOW IS.....	3815871.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-4.06	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-3.59	%
BPCHG = 0.49		
KWCHG = -0.49		
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.004893	%
THE CORRECTED GROSS GENERATION IS.....	587.13	MWe
THE CORRECTED NET GENERATION IS.....	555.13	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10601.2	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10656.1	BTU/NKW
THE TOTAL HEAT INPUT IS.....	5915.5	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006065

01-10-1995 11:56:13

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 650MW 1ST HR

MEASURED TEST INPUTS FROM FILE wb1hr94a.650

THE AVERAGE GROSS GENERATION IS.....	679.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	37.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.13	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	113.54	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	91.07	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	69.27	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	74.50	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	77.10	PCT
THE AVERAGE COAL FLOW IS.....	777100.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8733.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	22.47	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	89.07	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.30	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	95.30	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.51	IN-HG
THE TURBINE THROTTLE FLOW IS.....	4411986.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-3.01	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-2.23	%
BPCHG =	0.80	
KWCHG =	-0.80	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.007954	%
THE CORRECTED GROSS GENERATION IS.....	673.64	MWe
THE CORRECTED NET GENERATION IS.....	636.64	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10570.7	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10659.7	BTU/NKW
THE TOTAL HEAT INPUT IS.....	6786.4	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006066

01-10-1995 11:56:25

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 650MW 2ND HR

MEASURED TEST INPUTS FROM FILE wb1hr94b.650

THE AVERAGE GROSS GENERATION IS.....	686.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	33.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.27	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	115.11	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	92.83	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	71.10	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	80.40	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	64.07	PCT
THE AVERAGE COAL FLOW IS.....	784100.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8703.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	22.28	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	90.99	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	94.07	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	95.91	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.56	IN-HG
THE TURBINE THROTTLE FLOW IS.....	4475725.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-2.67	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-2.09	%
BPCHG =	0.59	
KWCHG =	-0.59	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.005890	%
THE CORRECTED GROSS GENERATION IS.....	681.98	MWe
THE CORRECTED NET GENERATION IS.....	648.98	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10450.3	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10514.9	BTU/NKW
THE TOTAL HEAT INPUT IS.....	6824.0	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006067

01-10-1995 11:56:55

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 750MW 1ST HR

MEASURED TEST INPUTS FROM FILE wb1hr94a.750

THE AVERAGE GROSS GENERATION IS.....	791.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	37.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.74	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	119.89	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	93.84	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	75.60	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	83.50	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	70.18	PCT
THE AVERAGE COAL FLOW IS.....	933200.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8606.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	26.05	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	93.90	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.90	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	93.84	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.74	IN-HG
THE TURBINE THROTTLE FLOW IS.....	5294983.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-1.31	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-1.31	%
BPCHG =	0.00	
KWCHG =	0.00	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.000000	%
THE CORRECTED GROSS GENERATION IS.....	791.00	MWe
THE CORRECTED NET GENERATION IS.....	754.00	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10651.4	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10651.4	BTU/NKW
THE TOTAL HEAT INPUT IS.....	8031.1	MMBTU

01-10-1995 11:57:08

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 1 - 750MW 2ND HR

MEASURED TEST INPUTS FROM FILE wblhr94b.750

THE AVERAGE GROSS GENERATION IS.....	791.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	36.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.84	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	120.86	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	95.04	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	76.20	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	86.60	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	62.76	PCT
THE AVERAGE COAL FLOW IS.....	928500.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8627.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	25.82	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	94.32	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	94.32	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	95.04	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.84	IN-HG
THE TURBINE THROTTLE FLOW IS.....	5305242.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-1.14	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-1.14	%
BPCHG =	0.00	
KWCHG =	0.00	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.000000	%
THE CORRECTED GROSS GENERATION IS.....	791.00	MWe
THE CORRECTED NET GENERATION IS.....	755.00	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10609.5	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10609.5	BTU/NKW
THE TOTAL HEAT INPUT IS.....	8010.2	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006069

01-10-1995 11:57:25

HEAT RATE CORRECTIONS FOR
WHITE BLUFF UNIT 1 FULL LOAD 1ST HR

MEASURED TEST INPUTS FROM FILE wblhr94a.815

THE AVERAGE GROSS GENERATION IS.....	829.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	37.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.99	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	122.32	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	95.13	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	75.20	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	83.60	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	68.46	PCT
THE AVERAGE COAL FLOW IS.....	935400.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8794.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	27.19	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	93.45	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	94.06	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	95.75	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	4.06	IN-HG
THE TURBINE THROTTLE FLOW IS.....	5610425.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-0.82	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-0.72	%
BPCHG =	0.10	
KWCHG =	-0.10	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.001045	%
THE CORRECTED GROSS GENERATION IS.....	828.13	MWe
THE CORRECTED NET GENERATION IS.....	791.13	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10386.2	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10397.6	BTU/NKW
THE TOTAL HEAT INPUT IS.....	8225.9	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006070

01-10-1995 11:57:37

HEAT RATE CORRECTIONS FOR
WHITE BLUFF UNIT 1 FULL LOAD 2ND HR

MEASURED TEST INPUTS FROM FILE wb1hr94b.815

THE AVERAGE GROSS GENERATION IS.....	822.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	36.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.69	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	119.41	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	92.41	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	75.20	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	83.60	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	68.46	PCT
THE AVERAGE COAL FLOW IS.....	933800.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8852.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	27.00	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	93.44	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	94.05	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	93.02	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.75	IN-HG
THE TURBINE THROTTLE FLOW IS.....	5531237.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-1.27	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-1.18	%
BPCHG =	0.08	
KWCHG =	-0.08	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.000819	%
THE CORRECTED GROSS GENERATION IS.....	821.33	MWe
THE CORRECTED NET GENERATION IS.....	785.33	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10516.5	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10525.5	BTU/NKW
THE TOTAL HEAT INPUT IS.....	8266.0	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006071

----- REGRESSION ANALYSIS -----

HEADER DATA FOR: E:WB1HR94 LABEL: WHITE BLUFF UNIT 1 HEAT RATE TESTS 1994
 NUMBER OF CASES: 16 NUMBER OF VARIABLES: 3

INDEX	NAME	MEAN	STD.DEV.
1	CNM	492.1493750	224.3437909
2	CNM^2	289395.5106250	219997.5571325
DEP. VAR.:	HEATIN	5424.7812500	2124.1648810

DEPENDENT VARIABLE: HEATIN

VAR.	REGRESSION COEFFICIENT	STD. ERROR	T(DF= 13)	PROB.	PARTIAL r^2
CNM	7.9512023	.4029996	19.730	.00000	.9677
CNM^2	.0015642	.0004110	3.806	.00218	.5271
CONSTANT	1058.9275623				

STD. ERROR OF EST. = 61.8466702

ADJUSTED R SQUARED = .9991523
 R SQUARED = .9992653
 MULTIPLE R = .9996326

ANALYSIS OF VARIANCE TABLE

SOURCE	SUM OF SQUARES	D.F.	MEAN SQUARE	F RATIO	PROB.
REGRESSION	67631421.4863450	2	33815710.7431730	8840.684	.000E+00
RESIDUAL	49725.1380312	13	3825.0106178		
TOTAL	67681146.6243760	15			

	OBSERVED	CALCULATED	RESIDUAL	STANDARDIZED RESIDUALS
1	2312.700	2369.135	-56.435304	*
2	2386.700	2374.460	12.239954	*
3	3143.200	3086.397	56.803358	*
4	3158.200	3139.426	18.773715	*
5	3972.900	3949.921	22.979315	*
6	3982.900	3987.640	-4.739947	*
7	4895.800	5002.242	-106.442019	*
8	4939.000	4921.638	17.362444	*
9	5946.000	5884.378	61.622442	*
10	5915.500	5954.919	-39.419063	*
11	6786.400	6754.970	31.429555	*
12	6824.000	6877.904	-53.903719	*
13	8031.100	7943.411	87.689278	*
14	8010.200	7953.722	56.477687	*
15	8225.900	8328.378	-102.478474	*
16	8266.000	8267.959	-1.959222	*

DURBIN-WATSON TEST = 2.3221

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006072

1994 Heat Rate Tests' Information White Bluff SES Unit 2

Summer Corrected Net Generation	Heat Input
(MW)	(MMBtu/Hr)
162.15	2274.60
158.12	2268.50
246.15	3037.10
250.24	3059.30
353.24	4048.00
356.58	3997.90
456.57	4867.80
451.73	4889.00
556.54	5818.30
549.26	5829.00
656.20	6761.30
648.35	6720.80
755.23	7900.80
759.40	7929.30
836.53	8788.80
842.81	8716.00

Input/Output Equation:

$$\text{Heat Input} = 1015.5475 + 7.710367 \times \text{NetMW} + 0.001783 \times \text{NetMW}^2$$

$$= \text{MMBtu/Hr}$$

Incremental Heat Rate Equation:

$$\text{Incremental Heat Rate} = (7.710367 + 0.003566 \times \text{NetMW}) \times 1000$$

$$= \text{Btu/Net Kwh}$$

Net Heat Rate Equation:

$$\text{Net Heat Rate} = (1015.5475 + 7.710367 \times \text{NetMW} + 0.001783 \times \text{NetMW}^2) \times 1000 / \text{NetMW}$$

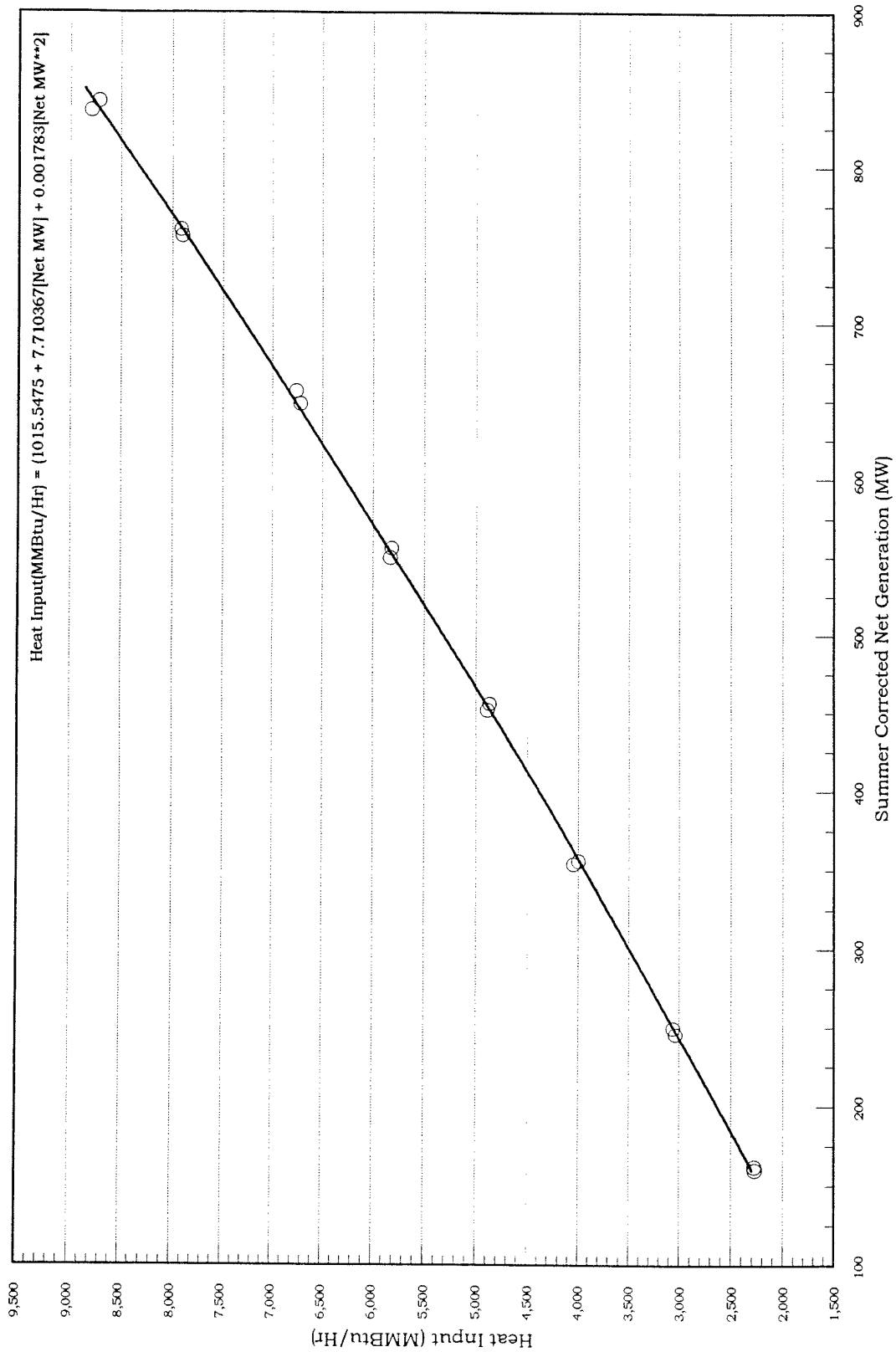
$$= \text{Btu/Net Kwh}$$

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006073

White Bluff 2 - 1994 Heat Rate Test Information
(corrected to summer 76 F wetbulb)



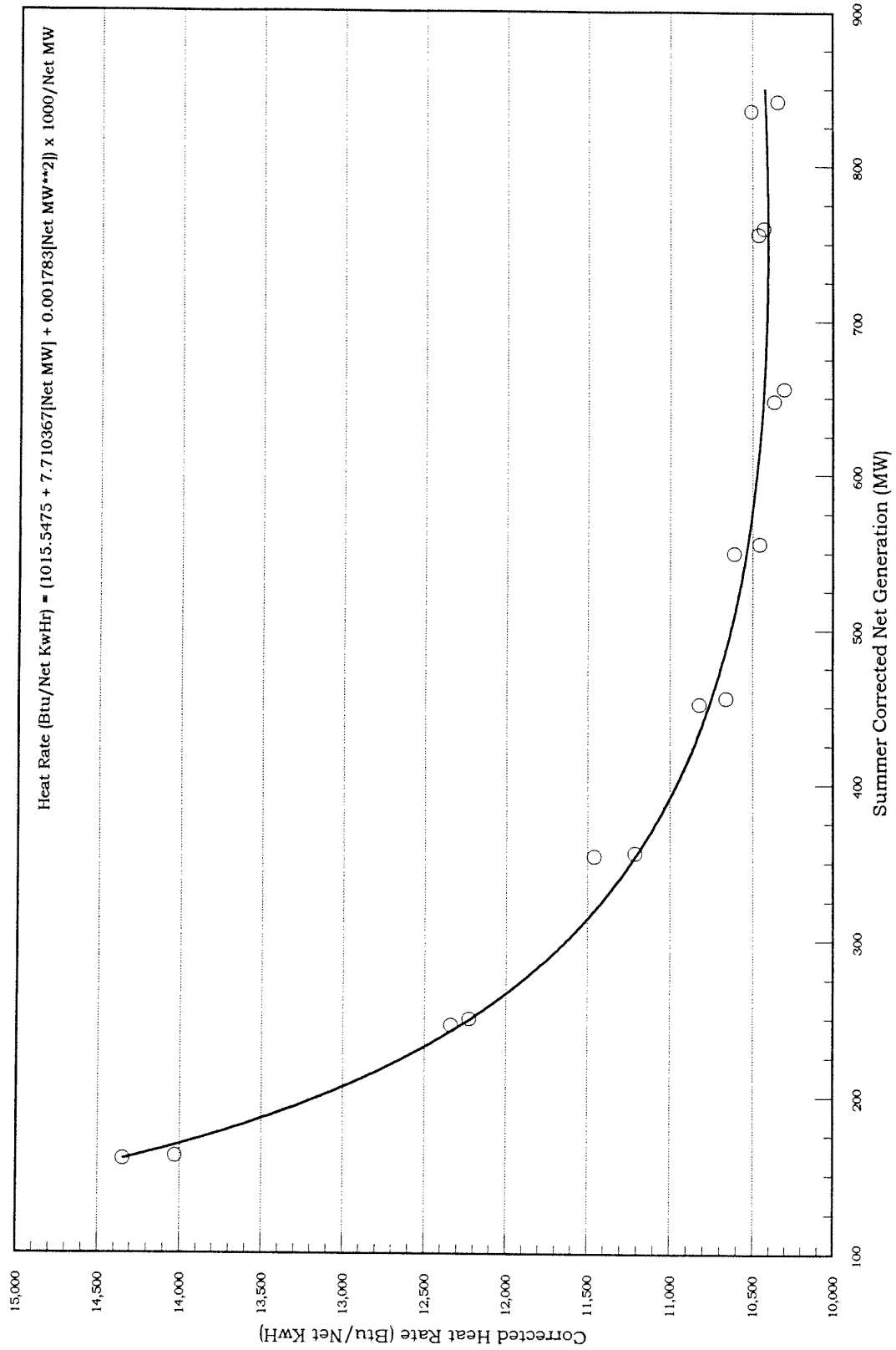
Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006074

White Bluff 2 - 1994 Heat Rate Test Information

(corrected to summer 76 F wetbulb)

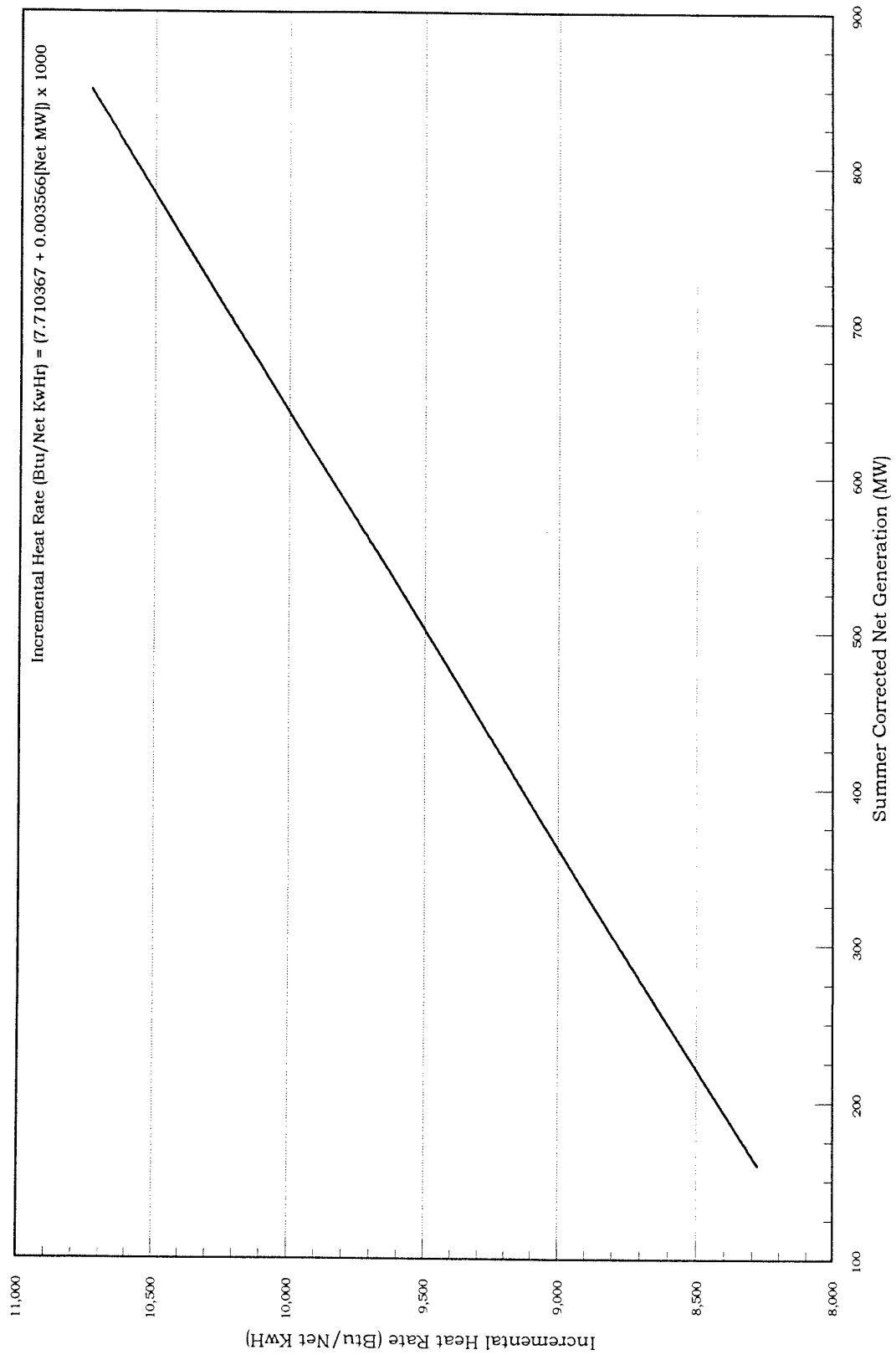


Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006075

White Bluff 2 - 1994 Heat Rate Test Information
(corrected to summer 76 F wetbulb)



Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006076

01-10-1995 11:58:51

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 160 - 1ST HR

MEASURED TEST INPUTS FROM FILE wb2hr94a.160

THE AVERAGE GROSS GENERATION IS.....	187.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	21.80	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	1.57	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	90.18	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	82.63	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	70.17	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	71.27	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	93.72	PCT
THE AVERAGE COAL FLOW IS.....	264300.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8606.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	7.55	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	87.13	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	91.25	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	86.75	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	1.78	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1184162.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-17.00	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-15.60	%
BPCHG =	1.68	
KWCHG =	-1.66	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.016561	%
THE CORRECTED GROSS GENERATION IS.....	183.95	MWe
THE CORRECTED NET GENERATION IS.....	162.15	MWe
THE UNCORRECTED NET HEAT RATE IS.....	13768.6	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	14027.2	BTU/NKW
THE TOTAL HEAT INPUT IS.....	2274.6	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006077

01-10-1995 11:59:02

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 160 - 2ND HR

MEASURED TEST INPUTS FROM FILE wb2hr94b.160

THE AVERAGE GROSS GENERATION IS.....	183.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	21.60	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	1.57	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	90.18	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	82.70	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	69.43	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	70.23	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	94.94	PCT
THE AVERAGE COAL FLOW IS.....	260600.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8705.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	7.48	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	86.72	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	91.17	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	87.15	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	1.79	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1157501.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-17.15	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-15.61	%
BPCHG =	1.86	
KWCHG =	-1.82	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.018237	%
THE CORRECTED GROSS GENERATION IS.....	179.72	MWe
THE CORRECTED NET GENERATION IS.....	158.12	MWe
THE UNCORRECTED NET HEAT RATE IS.....	14055.3	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	14346.6	BTU/NKW
THE TOTAL HEAT INPUT IS.....	2268.5	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006078

01-10-1995 11:59:14

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 250 - 1ST HR

MEASURED TEST INPUTS FROM FILE wb2hr94a.250

THE AVERAGE GROSS GENERATION IS.....	273.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	22.70	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	1.76	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	93.90	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	84.19	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	68.30	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	69.10	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	94.85	PCT
THE AVERAGE COAL FLOW IS.....	350500.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8665.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	9.71	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	86.36	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	91.38	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	89.21	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.04	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1765454.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-13.01	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-11.64	%
BPCHG =	1.57	
KWCHG =	-1.54	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.015433	%
THE CORRECTED GROSS GENERATION IS.....	268.85	MWe
THE CORRECTED NET GENERATION IS.....	246.15	MWe
THE UNCORRECTED NET HEAT RATE IS.....	12133.8	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	12338.3	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3037.1	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006079

01-10-1995 11:59:24

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 250 - 2ND HR

MEASURED TEST INPUTS FROM FILE wb2hr94b.250

THE AVERAGE GROSS GENERATION IS.....	275.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	21.60	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	1.71	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	92.97	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	83.37	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	69.70	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	71.10	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	92.38	PCT
THE AVERAGE COAL FLOW IS.....	351800.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8696.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	9.60	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	87.45	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	91.52	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	87.43	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	1.93	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1773270.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-13.18	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-12.16	%
BPCHG =	1.18	
KWCHG =	-1.16	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.011617	%
THE CORRECTED GROSS GENERATION IS.....	271.84	MWe
THE CORRECTED NET GENERATION IS.....	250.24	MWe
THE UNCORRECTED NET HEAT RATE IS.....	12072.8	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	12225.2	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3059.3	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006080

01-10-1995 11:59:36

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 350 - 1ST HR

MEASURED TEST INPUTS FROM FILE wb2hr94a.350

THE AVERAGE GROSS GENERATION IS.....	379.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	23.90	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.15	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	100.54	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	87.09	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	73.20	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	80.20	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	72.28	PCT
THE AVERAGE COAL FLOW IS.....	463900.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8726.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	13.45	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	90.99	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.01	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	89.10	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.28	IN-HG
THE TURBINE THROTTLE FLOW IS.....	2446627.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-8.97	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-8.52	%
BPCHG =	0.50	
KWCHG =	-0.49	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.004934	%
THE CORRECTED GROSS GENERATION IS.....	377.14	MWe
THE CORRECTED NET GENERATION IS.....	353.24	MWe
THE UNCORRECTED NET HEAT RATE IS.....	11399.6	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	11459.6	BTU/NKW
THE TOTAL HEAT INPUT IS.....	4048.0	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006081

01-10-1995 11:59:47

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 350 - 2ND HR

MEASURED TEST INPUTS FROM FILE wb2hr94b.350

THE AVERAGE GROSS GENERATION IS.....	382.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	24.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.22	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	101.61	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	88.34	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	74.20	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	83.20	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	66.23	PCT
THE AVERAGE COAL FLOW IS.....	463200.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8631.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	13.27	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	91.98	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.45	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	89.81	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.31	IN-HG
THE TURBINE THROTTLE FLOW IS.....	2470945.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-8.66	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-8.32	%
BPCHG =	0.38	
KWCHG =	-0.37	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.003738	%
THE CORRECTED GROSS GENERATION IS.....	380.58	MWe
THE CORRECTED NET GENERATION IS.....	356.58	MWe
THE UNCORRECTED NET HEAT RATE IS.....	11167.3	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	11211.8	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3997.9	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006082

01-10-1995 11:59:58

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 450 - 1ST HR

MEASURED TEST INPUTS FROM FILE wb2hr94a.450

THE AVERAGE GROSS GENERATION IS.....	483.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	24.80	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.27	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	102.39	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	86.66	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	72.90	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	78.40	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	77.31	PCT
THE AVERAGE COAL FLOW IS.....	568200.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8567.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	15.73	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	90.88	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	92.83	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	88.60	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.40	IN-HG
THE TURBINE THROTTLE FLOW IS.....	3085866.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-6.87	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-6.56	%
BPCHG =	0.34	
KWCHG =	-0.34	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.003386	%
THE CORRECTED GROSS GENERATION IS.....	481.37	MWe
THE CORRECTED NET GENERATION IS.....	456.57	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10623.7	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10661.6	BTU/NKW
THE TOTAL HEAT INPUT IS.....	4867.8	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

01-10-1995 12:00:09

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 450 - 2ND HR

MEASURED TEST INPUTS FROM FILE wb2hr94b.450

THE AVERAGE GROSS GENERATION IS.....	477.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	23.50	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.30	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	102.85	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	87.15	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	73.10	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	81.50	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	67.70	PCT
THE AVERAGE COAL FLOW IS.....	567300.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8618.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	15.70	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	91.45	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.48	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	89.17	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.44	IN-HG
THE TURBINE THROTTLE FLOW IS.....	3051917.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-6.89	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-6.54	%
BPCHG =	0.37	
KWCHG =	-0.37	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.003724	%
THE CORRECTED GROSS GENERATION IS.....	475.23	MWe
THE CORRECTED NET GENERATION IS.....	451.73	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10780.6	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10822.8	BTU/NKW
THE TOTAL HEAT INPUT IS.....	4889.0	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006084

01-10-1995 12:00:25

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 550 - 1ST HR

MEASURED TEST INPUTS FROM FILE wb2hr94a.550

THE AVERAGE GROSS GENERATION IS.....	586.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	27.80	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.54	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	106.24	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	87.85	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	73.20	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	80.70	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	70.63	PCT
THE AVERAGE COAL FLOW IS.....	675600.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8612.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	18.39	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	91.48	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.42	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	89.80	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.68	IN-HG
THE TURBINE THROTTLE FLOW IS.....	3761210.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-4.87	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-4.60	%
BPCHG =	0.28	
KWCHG =	-0.28	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.002833	%
THE CORRECTED GROSS GENERATION IS.....	584.34	MWe
THE CORRECTED NET GENERATION IS.....	556.54	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10423.3	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10454.3	BTU/NKW
THE TOTAL HEAT INPUT IS.....	5818.3	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006085

01-10-1995 12:00:40

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 550 - 2ND HR

MEASURED TEST INPUTS FROM FILE wb2hr94b.550

THE AVERAGE GROSS GENERATION IS.....	577.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	26.50	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.58	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	106.79	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	88.48	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	73.70	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	84.30	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	61.22	PCT
THE AVERAGE COAL FLOW IS.....	675200.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8633.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	18.31	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	92.67	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	94.06	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	89.87	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.68	IN-HG
THE TURBINE THROTTLE FLOW IS.....	3705931.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-4.90	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-4.70	%
BPCHG =	0.22	
KWCHG =	-0.21	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.002146	%
THE CORRECTED GROSS GENERATION IS.....	575.76	MWe
THE CORRECTED NET GENERATION IS.....	549.26	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10588.6	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10612.4	BTU/NKW
THE TOTAL HEAT INPUT IS.....	5829.0	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

01-10-1995 12:00:52

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 650 - 1ST HR

MEASURED TEST INPUTS FROM FILE wb2hr94a.650

THE AVERAGE GROSS GENERATION IS.....	688.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	28.70	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.63	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	107.45	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	85.86	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	68.50	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	77.10	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	65.15	PCT
THE AVERAGE COAL FLOW IS.....	774400.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8731.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	21.59	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	89.62	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.96	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	90.20	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.97	IN-HG
THE TURBINE THROTTLE FLOW IS.....	4440218.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-3.71	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-3.27	%
BPCHG =	0.46	
KWCHG =	-0.45	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.004531	%
THE CORRECTED GROSS GENERATION IS.....	684.90	MWe
THE CORRECTED NET GENERATION IS.....	656.20	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10255.3	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10303.7	BTU/NKW
THE TOTAL HEAT INPUT IS.....	6761.3	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

01-10-1995 12:01:05

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 650 - 2ND HR

MEASURED TEST INPUTS FROM FILE wb2hr94b.650

THE AVERAGE GROSS GENERATION IS.....	680.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	28.50	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.64	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	107.58	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	86.21	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	69.20	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	82.10	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	52.59	PCT
THE AVERAGE COAL FLOW IS.....	773400.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8690.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	21.37	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	90.31	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	94.77	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	90.66	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.99	IN-HG
THE TURBINE THROTTLE FLOW IS.....	4384161.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-3.78	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-3.33	%
BPCHG =	0.47	
KWCHG =	-0.47	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.004657	%
THE CORRECTED GROSS GENERATION IS.....	676.85	MWe
THE CORRECTED NET GENERATION IS.....	648.35	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10316.0	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10366.1	BTU/NKW
THE TOTAL HEAT INPUT IS.....	6720.8	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006088

01-10-1995 12:01:19

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 750 - 1ST HR

MEASURED TEST INPUTS FROM FILE wb2hr94a.750

THE AVERAGE GROSS GENERATION IS.....	785.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	30.50	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.53	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	117.85	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	92.08	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	76.50	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	96.60	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	38.03	PCT
THE AVERAGE COAL FLOW IS.....	909500.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8687.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	25.77	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	97.28	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	96.61	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	91.41	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.47	IN-HG
THE TURBINE THROTTLE FLOW IS.....	5224731.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-1.67	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-1.76	%
BPCHG =	-0.09	
KWCHG =	0.09	
THE BACKPRESSURE CORRECTION FACTOR IS.....	0.999070	%
THE CORRECTED GROSS GENERATION IS.....	785.73	MWe
THE CORRECTED NET GENERATION IS.....	755.23	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10471.6	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10461.5	BTU/NKW
THE TOTAL HEAT INPUT IS.....	7900.8	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

01-10-1995 12:01:31

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNTI 2 - 750 - 2ND HR

MEASURED TEST INPUTS FROM FILE wb2hr94b.750

THE AVERAGE GROSS GENERATION IS.....	790.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	30.60	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.59	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	118.43	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	92.71	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	76.40	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	96.20	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	38.67	PCT
THE AVERAGE COAL FLOW IS.....	908800.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8714.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	25.72	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	96.53	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	96.53	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	92.71	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.59	IN-HG
THE TURBINE THROTTLE FLOW IS.....	5271193.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-1.54	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-1.54	%
BPCHG =	0.00	
KWCHG =	0.00	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.000000	%
THE CORRECTED GROSS GENERATION IS.....	790.00	MWe
THE CORRECTED NET GENERATION IS.....	759.40	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10428.3	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10428.3	BTU/NKW
THE TOTAL HEAT INPUT IS.....	7919.3	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006090

01-10-1995 12:01:43

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 840 - 1ST HR

MEASURED TEST INPUTS FROM FILE wb2hr94a.840

THE AVERAGE GROSS GENERATION IS.....	876.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	33.50	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.41	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	116.62	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	88.19	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	67.20	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	89.80	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	27.57	PCT
THE AVERAGE COAL FLOW IS.....	1011600.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8688.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	28.43	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	92.06	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	97.89	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	94.02	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.99	IN-HG
THE TURBINE THROTTLE FLOW IS.....	5917023.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-1.42	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-0.74	%
BPCHG =	0.69	
KWCHG =	-0.69	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.006864	%
THE CORRECTED GROSS GENERATION IS.....	870.03	MWe
THE CORRECTED NET GENERATION IS.....	836.53	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10431.8	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10506.3	BTU/NKW
THE TOTAL HEAT INPUT IS.....	8788.8	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006091

01-10-1995 12:01:54

HEAT RATE CORRECTIONS FOR WHITE BLUFF UNIT 2 - 840 - 2ND HR

MEASURED TEST INPUTS FROM FILE wb2hr94b.840

THE AVERAGE GROSS GENERATION IS.....	882.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	33.60	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.48	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	117.35	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	88.88	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	67.90	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	91.40	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	25.91	PCT
THE AVERAGE COAL FLOW IS.....	1008800.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8640.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	28.47	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	92.78	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	98.10	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	94.20	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	4.02	IN-HG
THE TURBINE THROTTLE FLOW IS.....	5968445.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-1.33	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-0.69	%
BPCHG =	0.64	
KWCHG =	-0.64	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.006383	%
THE CORRECTED GROSS GENERATION IS.....	876.41	MWe
THE CORRECTED NET GENERATION IS.....	842.81	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10273.5	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10341.7	BTU/NKW
THE TOTAL HEAT INPUT IS.....	8716.0	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

----- REGRESSION ANALYSIS -----

HEADER DATA FOR: E:HR94WB2 LABEL:
 MBER OF CASES: 16 NUMBER OF VARIABLES: 3

INDEX	NAME	MEAN	STD.DEV.
1	CNMW	502.4437500	233.7098158
2	CNM2^2	303581.4637500	238142.5587119
DEP. VAR.:	HEATIN	5430.9975000	2221.1123272

DEPENDENT VARIABLE: HEATIN

VAR.	REGRESSION COEFFICIENT	STD. ERROR	T(DF= 13)	PROB.	PARTIAL r^2
CNMW	7.7103672	.3073951	25.083	.00000	.9798
CNM2^2	.0017835	.0003017	5.912	.00005	.7289
CONSTANT	1015.5475017				

STD. ERROR OF EST. = 52.2618548

ADJUSTED R SQUARED = .9994464
 R SQUARED = .9995202
 MULTIPLE R = .9997601

ANALYSIS OF VARIANCE TABLE

SOURCE	SUM OF SQUARES	D.F.	MEAN SQUARE	F RATIO	PROB.
REGRESSION	73964592.6344330	2	36982296.3172170	13540.174	.000E+00
RESIDUAL	35506.9190687	13	2731.3014668		
TOTAL	74000099.5535020	15			

	OBSERVED	CALCULATED	RESIDUAL	STANDARDIZED RESIDUALS
1	2274.060	2312.675	-38.615270	*
2	2268.500	2279.301	-10.800602	*
3	3037.100	3021.514	15.586338	*
4	3059.300	3056.670	2.630092	*
5	4048.000	3961.695	86.305427	*
6	3997.900	3991.675	6.224583	*
7	4867.800	4907.642	-39.842243	*
8	4889.000	4862.484	26.516310	*
9	5818.300	5859.077	-40.777168	*
10	5829.000	5788.588	40.411519	*
11	6761.300	6843.044	-81.743839	*
12	6720.800	6764.254	-43.453583	*
13	7900.800	7855.882	44.917871	*
14	7919.300	7899.299	20.001314	*
15	8788.800	8713.532	75.267809	*
16	8716.000	8778.629	-62.628557	*

DURBIN-WATSON TEST = 2.2414

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006093

White Bluff Plant - Unit One
Heat Rate Test Inputs
1995

Test Load	160	160	250	250	350	350	450	450	550	550	650	650	750	750	FULL	FULL
Test Date	6/21/95	6/21/95	6/20/95	6/20/95	6/30/95	6/30/95	6/20/95	6/20/95	6/21/95	6/21/95	6/23/95	6/23/95	6/30/95	6/30/95	6/23/95	6/23/95
Start Time	400	500	400	500	800	800	900	1000	900	1000	900	1000	1300	1400	1400	1500
End Time	500	600	500	600	900	900	1000	1000	1000	1100	1000	1100	1400	1500	1500	1600
Data File Name	1160a	1160b	1250a	1250b	1350a	1350b	1450a	1450b	1550a	1550b	1650a	1650b	1750a	1750b	1FULLa	1FULLb
Gross Generation (MW)	190	190	282	280	377	372	481	483	563	585	688	685	781	787	853	853
Aux Usage (MW)	28.3	26.9	26.6	27.7	28.5	29.4	30.2	29.7	31.4	31	33.6	34.2	36.7	36.3	38.5	37.9
Back Pressure (inHg)	2.51	2.52	2.50	2.49	2.34	2.36	2.94	3.03	3.33	3.35	3.42	3.49	3.88	3.96	4.25	4.30
Hot Water Temp (DEGF)	99.86	99.69	102.05	101.55	104.54	104.73	111.73	112.98	115.91	115.93	116.01	116.74	120.16	120.91	123.22	123.53
Cold Water Temp (DEGF)	90.82	90.58	90.47	90.03	91.26	91.54	95.49	96.86	97.01	97.00	94.41	95.17	95.73	96.43	96.82	97.06
Wet Bulb Temperature (DEGF)	67.80	67.10	64.30	68.10	73.40	72.70	70.10	78.10	71.20	78.10	72.10	72.60	75.40	74.80	72.40	73.20
Dry Bulb Temperature (DEGF)	70.20	68.70	64.70	69.60	78.30	78.50	73.00	85.00	71.80	78.90	80.40	85.60	86.30	85.60	92.00	94.00
Coal Flow (PPH)	269300	267200	358800	363200	442200	439000	592900	578700	673700	671900	820400	824400	902900	893900	1009800	1008000
Coal Heating Value (BTU/lb)	8539.0	8643.0	8751.0	8691.0	8763.0	8760.0	8521.0	8565.0	8613.0	8543.0	8449.0	8416.0	8642.0	8695.0	8681.0	8681.0
Oil Flow (BBL/HR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oil Heating Value (BTU/lb)	5922000	5922000	5922000	5922000	5922000	5922000	5922000	5922000	5922000	5922000	5922000	5922000	5922000	5922000	5922000	5922000

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

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07/20/95

H:\HRIWB\1995\HRDATA.WB1

WB_00006094

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	I	X	Y
Data Input Index:	1	155.3900	2299.6000
Data Input Index:	2	156.2700	2309.4000
Data Input Index:	3	245.1700	3156.6000
Data Input Index:	4	245.6000	3139.9000
Data Input Index:	5	339.0500	3845.6000
Data Input Index:	6	344.9300	3875.0000
Data Input Index:	7	443.6800	4966.9000
Data Input Index:	8	453.3000	4956.6000
Data Input Index:	9	544.8400	5802.6000
Data Input Index:	10	555.0000	5740.0000
Data Input Index:	11	646.0400	6939.8000
Data Input Index:	12	649.0200	6931.6000
Data Input Index:	13	741.6200	7802.9000
Data Input Index:	14	747.8700	7772.5000
Data Input Index:	15	808.1600	8687.9000
Data Input Index:	16	809.7100	8750.4000

Curve Fit to the Power of 2.

Results:

$X^2 = 2.73169371315478E-0003$
 $X^1 = 6.98633185603036E+0000$
 $X^0 = 1.19608046828396E+0003$

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006095

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1160a

THE AVERAGE GROSS GENERATION IS.....	190.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	28.30	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.51	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	99.86	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	90.82	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	67.80	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	70.20	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	87.85	PCT
THE AVERAGE COAL FLOW IS.....	269300.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8539.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	9.04	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	86.54	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.26	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	97.54	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.03	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1312352.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-10.23	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-7.03	%
BPCHG =	3.56	
KWCHG =	-3.44	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.034360	%
THE CORRECTED GROSS GENERATION IS.....	183.69	MWe
THE CORRECTED NET GENERATION IS.....	155.39	MWe
THE UNCORRECTED NET HEAT RATE IS.....	14221.1	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	14798.7	BTU/NKW
THE TOTAL HEAT INPUT IS.....	2299.6	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1160b

THE AVERAGE GROSS GENERATION IS..... 190.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 26.90 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 2.52 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 99.69 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 90.58 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 67.10 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 68.70 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 91.19 PCT
THE AVERAGE COAL FLOW IS..... 267200.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8643.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 9.11 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 85.77 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 93.13 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 97.94 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 3.09 IN-HG
THE TURBINE THROTTLE FLOW IS..... 1313371.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -10.16 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -6.69 %
BPCHG = 3.87
KWCHG = -3.73
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.037267 %
THE CORRECTED GROSS GENERATION IS..... 183.17 MWe
THE CORRECTED NET GENERATION IS..... 156.27 MWe
THE UNCORRECTED NET HEAT RATE IS..... 14159.5 BTU/NKW
THE CORRECTED NET HEAT RATE IS..... 14778.0 BTU/NKW
THE TOTAL HEAT INPUT IS..... 2309.4 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1250a

THE AVERAGE GROSS GENERATION IS.....	282.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	26.60	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.50	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	102.05	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	90.47	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	64.30	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	64.70	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	96.60	PCT
THE AVERAGE COAL FLOW IS.....	358800.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8751.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	11.58	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	84.06	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.07	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	99.48	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.21	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1887191.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-8.93	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-5.53	%
BPCWG =	3.73	
KWCHG =	-3.60	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.035986	%
THE CORRECTED GROSS GENERATION IS.....	272.20	MWe
THE CORRECTED NET GENERATION IS.....	245.60	MWe
THE UNCORRECTED NET HEAT RATE IS.....	12293.9	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	12784.2	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3139.9	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1250b

THE AVERAGE GROSS GENERATION IS..... 280.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 27.70 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 2.49 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 101.55 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 90.03 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 68.10 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 69.60 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 91.74 PCT
THE AVERAGE COAL FLOW IS..... 363200.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8691.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 11.52 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 86.68 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 93.26 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 96.62 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 2.99 IN-HG
THE TURBINE THROTTLE FLOW IS..... 1873964.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -9.01 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -6.57 %
BPCHG = 2.68
KWCHG = -2.61
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.026116 %
THE CORRECTED GROSS GENERATION IS..... 272.87 MWe
THE CORRECTED NET GENERATION IS..... 245.17 MWe
THE UNCORRECTED NET HEAT RATE IS..... 12511.2 BTU/NKW
THE CORRECTED NET HEAT RATE IS..... 12874.8 BTU/NKW
THE TOTAL HEAT INPUT IS..... 3156.6 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1350a

THE AVERAGE GROSS GENERATION IS..... 377.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 28.50 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 2.34 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 103.43 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 90.15 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 73.40 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 78.30 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 79.58 PCT
THE AVERAGE COAL FLOW IS..... 442200.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8763.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 13.28 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 90.55 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 93.86 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 93.46 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 2.57 IN-HG
THE TURBINE THROTTLE FLOW IS..... 2450656.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -8.28 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -7.39 %
BPCHG = 0.97
KWCHG = -0.96
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.009565 %
THE CORRECTED GROSS GENERATION IS..... 373.43 MWe
THE CORRECTED NET GENERATION IS..... 344.93 MWe
THE UNCORRECTED NET HEAT RATE IS..... 11119.1 BTU/NKW
THE CORRECTED NET HEAT RATE IS..... 11234.2 BTU/NKW
THE TOTAL HEAT INPUT IS..... 3875.0 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1350b

THE AVERAGE GROSS GENERATION IS.....	372.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	29.40	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.36	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	103.72	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	90.53	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	72.70	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	78.50	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	76.19	PCT
THE AVERAGE COAL FLOW IS.....	439000.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8760.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	13.19	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	90.73	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.99	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	93.79	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.59	IN-HG
THE TURBINE THROTTLE FLOW IS.....	2422036.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-8.27	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-7.38	%
BPCHG =	0.97	
KWCHG =	-0.96	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.009635	%
THE CORRECTED GROSS GENERATION IS.....	368.45	MWe
THE CORRECTED NET GENERATION IS.....	339.05	MWe
THE UNCORRECTED NET HEAT RATE IS.....	11224.9	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	11342.4	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3845.6	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

HEAT RATE CORRECTIONS

White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1450a

THE AVERAGE GROSS GENERATION IS.....	481.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	30.20	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.94	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	111.34	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	95.10	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	70.10	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	73.00	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	86.26	PCT
THE AVERAGE COAL FLOW IS.....	582900.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8521.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	16.24	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	88.55	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.78	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	100.34	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.40	IN-HG
THE TURBINE THROTTLE FLOW IS.....	3128316.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-4.96	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-3.51	%
BPCHG =	1.53	
KWCHG =	-1.50	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.015024	%
THE CORRECTED GROSS GENERATION IS.....	473.88	MWe
THE CORRECTED NET GENERATION IS.....	443.68	MWe
THE UNCORRECTED NET HEAT RATE IS.....	11017.9	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	11194.8	BTU/NKW
THE TOTAL HEAT INPUT IS.....	4966.9	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1450b

THE AVERAGE GROSS GENERATION IS..... 483.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 29.70 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 3.03 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 112.40 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 96.28 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 78.10 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 85.00 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 74.18 PCT
THE AVERAGE COAL FLOW IS..... 578700.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8565.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 16.12 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 94.28 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 94.28 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 96.28 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 3.03 IN-HG
THE TURBINE THROTTLE FLOW IS..... 3148795.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -4.66 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -4.66 %
BPCHG = 0.00
KWCHG = 0.00
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.000000 %

THE CORRECTED GROSS GENERATION IS..... 483.00 MWe
THE CORRECTED NET GENERATION IS..... 453.30 MWe
THE UNCORRECTED NET HEAT RATE IS..... 10934.4 BTU/NKW
THE CORRECTED NET HEAT RATE IS..... 10934.4 BTU/NKW
THE TOTAL HEAT INPUT IS..... 4956.6 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1550a

THE AVERAGE GROSS GENERATION IS..... 583.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 31.40 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 3.33 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 115.76 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 96.86 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 71.20 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 71.80 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 95.97 PCT
THE AVERAGE COAL FLOW IS..... 673700.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8613.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 18.90 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 89.15 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 93.57 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 101.28 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 3.76 IN-HG
THE TURBINE THROTTLE FLOW IS..... 3809793.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -3.12 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -1.97 %
BPCHG = 1.19
KWCHG = -1.17
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.011726 %
THE CORRECTED GROSS GENERATION IS..... 576.24 MWe
THE CORRECTED NET GENERATION IS..... 544.84 MWe
THE UNCORRECTED NET HEAT RATE IS..... 10519.5 BTU/NKW
THE CORRECTED NET HEAT RATE IS..... 10650.0 BTU/NKW
THE TOTAL HEAT INPUT IS..... 5802.6 MMBTU

HEAT RATE CORRECTIONS

White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1550b

THE AVERAGE GROSS GENERATION IS..... 586.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 31.00 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 3.35 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 115.93 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 97.00 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 78.10 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 78.90 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 96.07 PCT
THE AVERAGE COAL FLOW IS..... 671900.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8543.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 18.93 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 93.57 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 93.57 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 97.00 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 3.35 IN-HG
THE TURBINE THROTTLE FLOW IS..... 3830670.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -3.05 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -3.05 %
BPCHG = 0.00
KWCHG = 0.00
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.000000 %
THE CORRECTED GROSS GENERATION IS..... 586.00 MWe
THE CORRECTED NET GENERATION IS..... 555.00 MWe
THE UNCORRECTED NET HEAT RATE IS..... 10342.4 BTU/NKW
THE CORRECTED NET HEAT RATE IS..... 10342.4 BTU/NKW
THE TOTAL HEAT INPUT IS..... 5740.0 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1650a

THE AVERAGE GROSS GENERATION IS.....	688.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	33.60	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.42	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	116.01	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	94.41	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	72.10	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	80.40	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	67.63	PCT
THE AVERAGE COAL FLOW IS.....	820400.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8449.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	21.60	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	91.30	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	95.04	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	98.14	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.79	IN-HG
THE TURBINE THROTTLE FLOW IS.....	4504030.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-2.36	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-1.58	%
BPCHG =	0.80	
KWCHG =	-0.79	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.007889	%
THE CORRECTED GROSS GENERATION IS.....	682.62	MWe
THE CORRECTED NET GENERATION IS.....	649.02	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10592.2	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10680.1	BTU/NKW
THE TOTAL HEAT INPUT IS.....	6931.6	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1650b

THE AVERAGE GROSS GENERATION IS.....	685.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	34.20	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.49	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	116.74	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	95.17	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	72.60	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	85.60	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	53.94	PCT
THE AVERAGE COAL FLOW IS.....	824400.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8418.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	21.57	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	92.70	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	95.89	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	98.36	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.81	IN-HG
THE TURBINE THROTTLE FLOW IS.....	4490272.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-2.23	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-1.54	%
BPCWG =	0.71	
KWCHG =	-0.70	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.007003	%
THE CORRECTED GROSS GENERATION IS.....	680.24	MWe
THE CORRECTED NET GENERATION IS.....	646.04	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10663.5	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10742.1	BTU/NKW
THE TOTAL HEAT INPUT IS.....	6939.8	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1750a

THE AVERAGE GROSS GENERATION IS..... 781.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 36.70 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 3.88 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 120.15 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 95.73 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 75.40 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 86.30 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 61.00 PCT
THE AVERAGE COAL FLOW IS..... 902900.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8642.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 24.42 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 93.70 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 95.61 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 97.63 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 4.08 IN-HG
THE TURBINE THROTTLE FLOW IS..... 5230715.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -1.11 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -0.77 %
BPCHG = 0.35
KWCHG = -0.34
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.003445 %
THE CORRECTED GROSS GENERATION IS..... 778.32 MWe
THE CORRECTED NET GENERATION IS..... 741.62 MWe
THE UNCORRECTED NET HEAT RATE IS..... 10483.5 BTU/NKW
THE CORRECTED NET HEAT RATE IS..... 10521.4 BTU/NKW
THE TOTAL HEAT INPUT IS..... 7802.9 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1750b

THE AVERAGE GROSS GENERATION IS.....	787.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	36.30	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.96	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	120.91	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	96.43	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	74.80	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	85.60	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	61.07	PCT
THE AVERAGE COAL FLOW IS.....	893900.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8695.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	24.48	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	93.70	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	95.61	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	98.33	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	4.17	IN-HG
THE TURBINE THROTTLE FLOW IS.....	5286214.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-0.96	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-0.60	%
BPCHG =	0.36	
KWCHG =	-0.36	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.003612	%
THE CORRECTED GROSS GENERATION IS.....	784.17	MWe
THE CORRECTED NET GENERATION IS.....	747.87	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10353.6	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10392.8	BTU/NKW
THE TOTAL HEAT INPUT IS.....	7772.5	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

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WB_00006109

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1fulla

THE AVERAGE GROSS GENERATION IS..... 853.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 38.50 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 4.25 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 123.22 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 96.82 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 72.40 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 92.00 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 37.21 PCT
THE AVERAGE COAL FLOW IS..... 1000800.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8681.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 26.40 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 94.10 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 98.10 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 100.82 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 4.72 IN-HG
THE TURBINE THROTTLE FLOW IS..... 5813573.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -0.39 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... 0.37 %
BPCHG = 0.75
KWCHG = -0.75
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.007486 %
THE CORRECTED GROSS GENERATION IS..... 846.66 MWe
THE CORRECTED NET GENERATION IS..... 808.16 MWe
THE UNCORRECTED NET HEAT RATE IS..... 10666.6 BTU/NKW
THE CORRECTED NET HEAT RATE IS..... 10750.3 BTU/NKW
THE TOTAL HEAT INPUT IS..... 8687.9 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit One

MEASURED TEST INPUTS FROM FILE 1fullb

THE AVERAGE GROSS GENERATION IS..... 853.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 37.90 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 4.30 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 123.53 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 97.06 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 73.20 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 94.00 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 34.83 PCT
THE AVERAGE COAL FLOW IS..... 1008000.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8681.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 26.47 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 95.04 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 98.42 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 100.45 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 4.70 IN-HG
THE TURBINE THROTTLE FLOW IS..... 5818548.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -0.31 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... 0.33 %
BPCHG = 0.64
KWCHG = -0.64
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.006361 %
THE CORRECTED GROSS GENERATION IS..... 847.61 MWe
THE CORRECTED NET GENERATION IS..... 809.71 MWe
THE UNCORRECTED NET HEAT RATE IS..... 10735.4 BTU/NKW
THE CORRECTED NET HEAT RATE IS..... 10806.9 BTU/NKW
THE TOTAL HEAT INPUT IS..... 8750.4 MMBTU

**ENTERGY**

**Inter-Office
Correspondence**

Date: July 18, 1995

To: Mr. Jim Campbell T-EP-16
Mr. Mike Bakewell T-EP-16
Mr. Lynn Sanders A-WB
Mr. William Phillips A-SOC
Mr. Henry Thompson A-TCBY-23G

From: Pat Klepper Phone: 8-762-4529
Roger Lawson Phone: 8-764-7329

Subject: 1995 White Bluff Plant - Heat Rate Test Results

Heat rate tests were performed on both White Bluff Units from June 20 through June 30. Co-owners were notified prior to the tests and representatives of Arkansas Electric Co-operative were present to observe the testing. Testing was performed in an unbiased manner per Entergy procedure dated November 30, 1992. The Unit 2 load range was restricted due to air preheater flow restrictions.

Our calculations, analysis, and review are now complete and the results are attached for your reference. It is our recommendation that the results be implemented for dispatch and co-owner billing. The new coefficients for the heat rate equations are;

Unit One

X^2	=	2.73169371315478E-0003
X^1	=	6.98633185603036E+0000
X^0	=	1.19608046828396E+0003

Unit Two

X^2	=	1.32874423471649E-0003
X^1	=	8.42371123335924E+0000
X^0	=	9.53025351923540E+0002

If you need any additional information, please do not hesitate to contact either Roger Lawson or Pat Klepper.

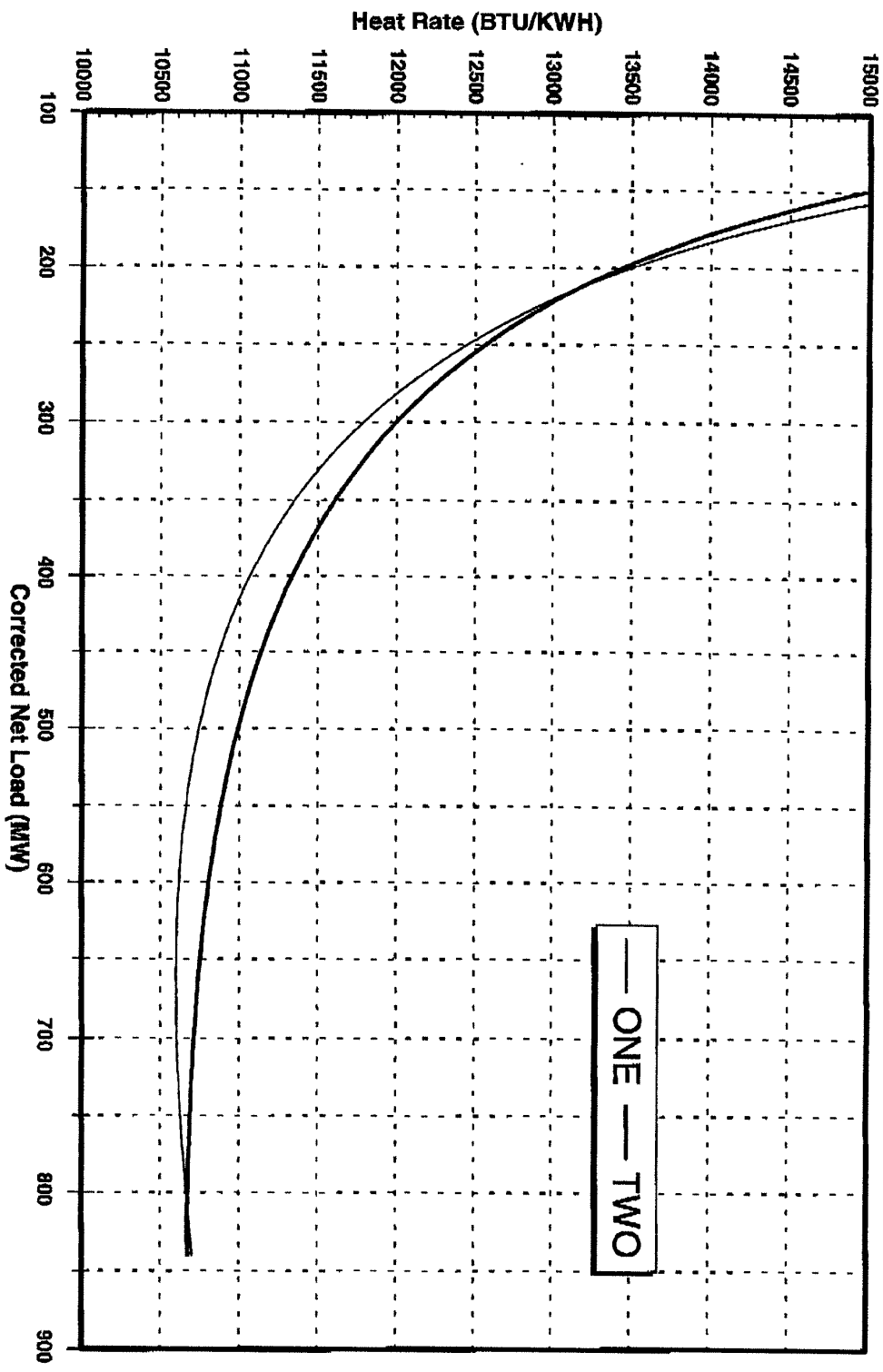
Pat Klepper

WPK/wpk

w/Attachments

c:	George Eubanks	A-WB-SC
	Phil Carter	A-SOC
	Robert Rickett	A-WB
	David Harris	A.E.C.C.

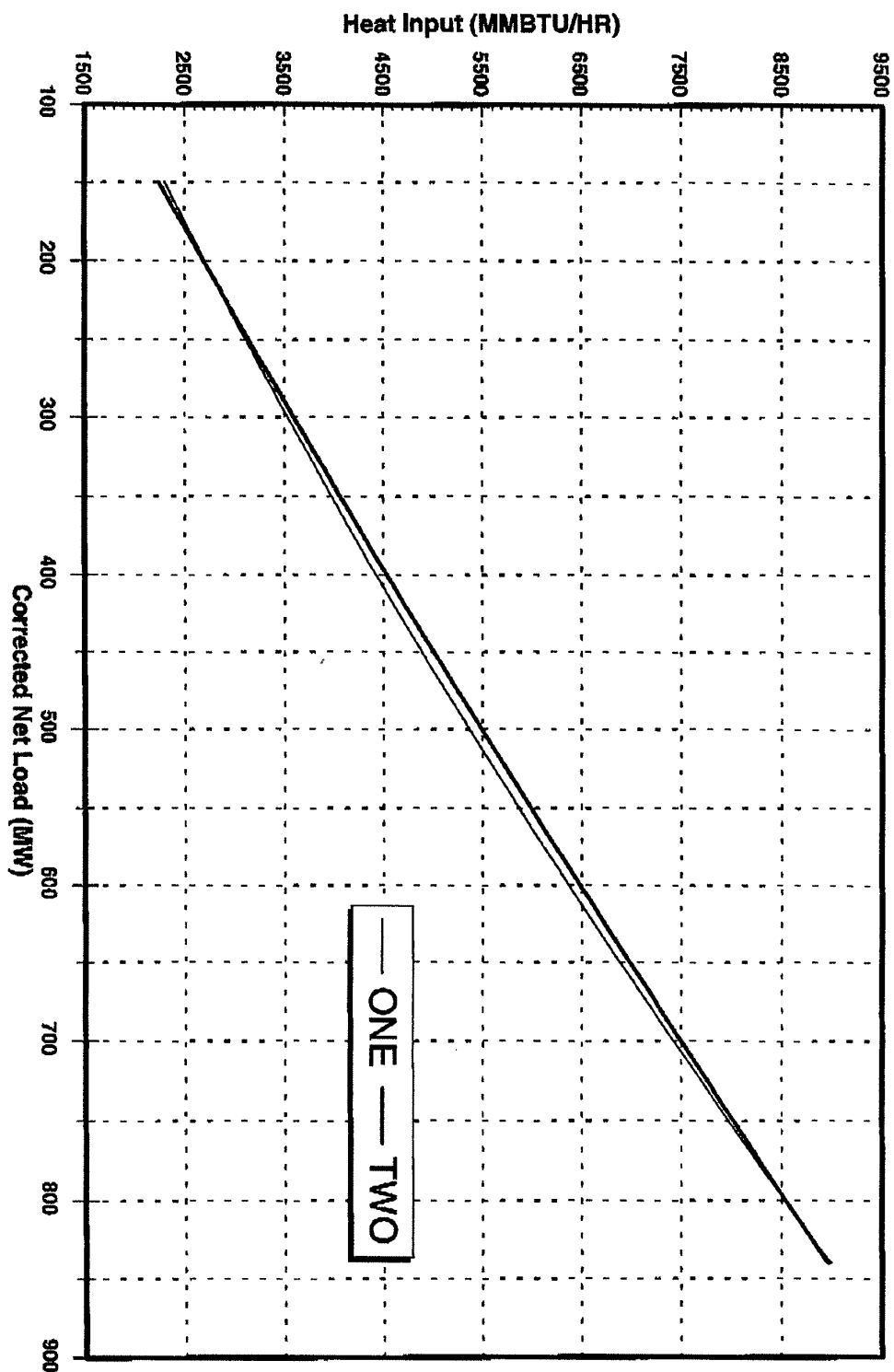
White Bluff Plant 1995 Heat Rate Test Results



HA-FRMWB1995HR1995.WB1

07/18/95

White Bluff Plant **1995 Heat Rate Test Results**



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07/18/95

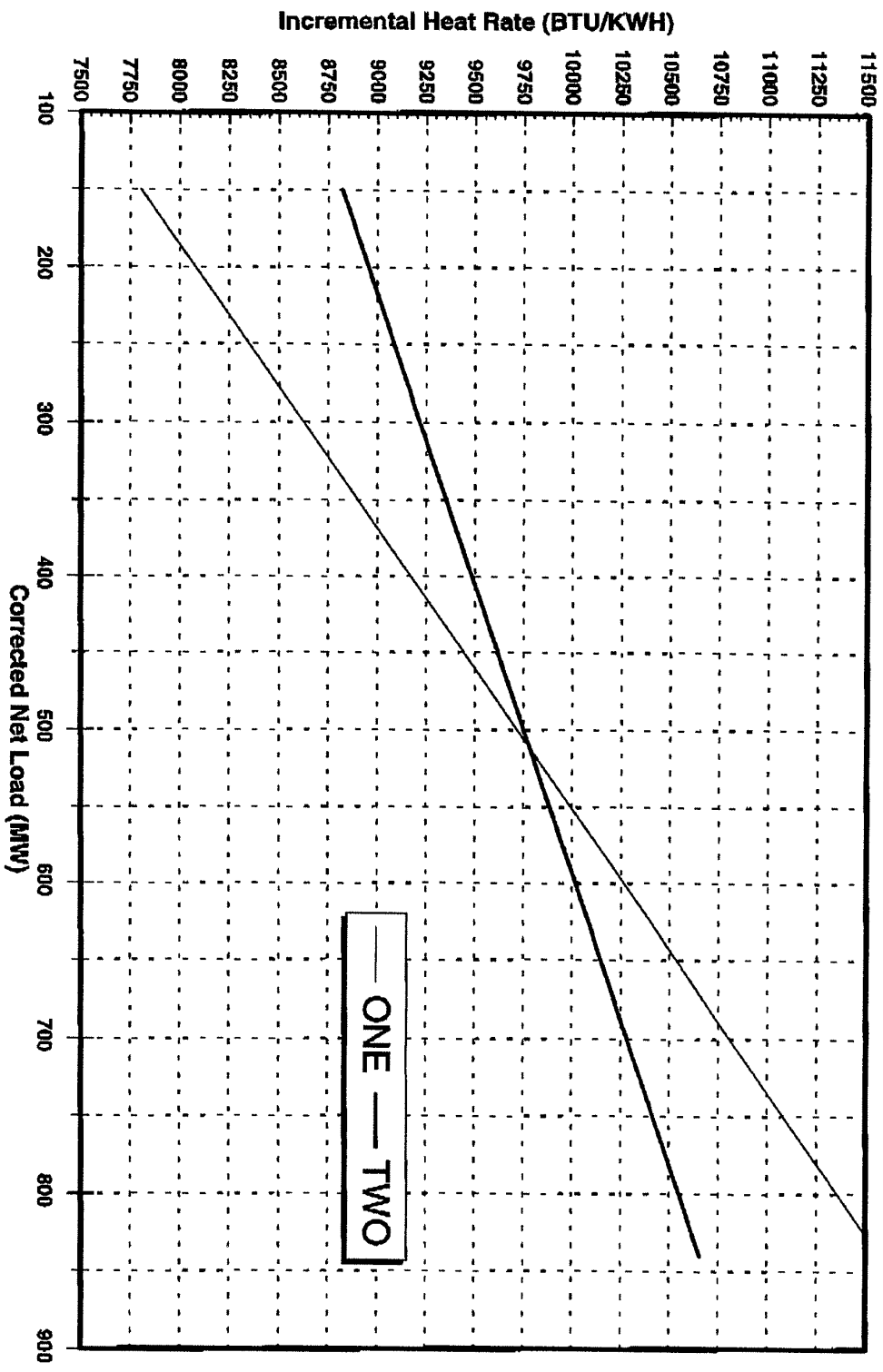
10/03/95 08:55 501 698 4512 IND. PLANT +++ PLANT SUPPORT 004/020

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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00006115

White Bluff Plant **1995 Heat Rate Test Results**



HEA/RM/WB/1895/HRI/95L.WB/1

07/18/95

10/03/95 08:55 0501 698 4512 IND. PLANT +++ PLANT SUPPORT 006/020

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White Bluff Plant - Unit One Heat Rate Test Results 1995

CORRECTED NET MW	HEAT INPUT MMBTU/HR
155.3900	2299.6000
156.2700	2309.4000
245.1700	3156.6000
245.6000	3139.9000
339.0500	3845.6000
344.9300	3875.0000
443.6800	4966.9000
453.3000	4956.6000
544.8400	5802.6000
555.0000	5740.0000
646.0400	6939.8000
649.0200	6931.6000
741.6200	7802.9000
747.8700	7772.5000
808.1600	8687.9000
809.7100	8750.4000

HEAT INPUT EQUATION

$$\text{HEATINPUT(MMBTU/HR)} = 1196.080468 + 6.986332 \times \text{MW} + 0.002731694 \times \text{MW}^2$$

HEAT RATE EQUATION

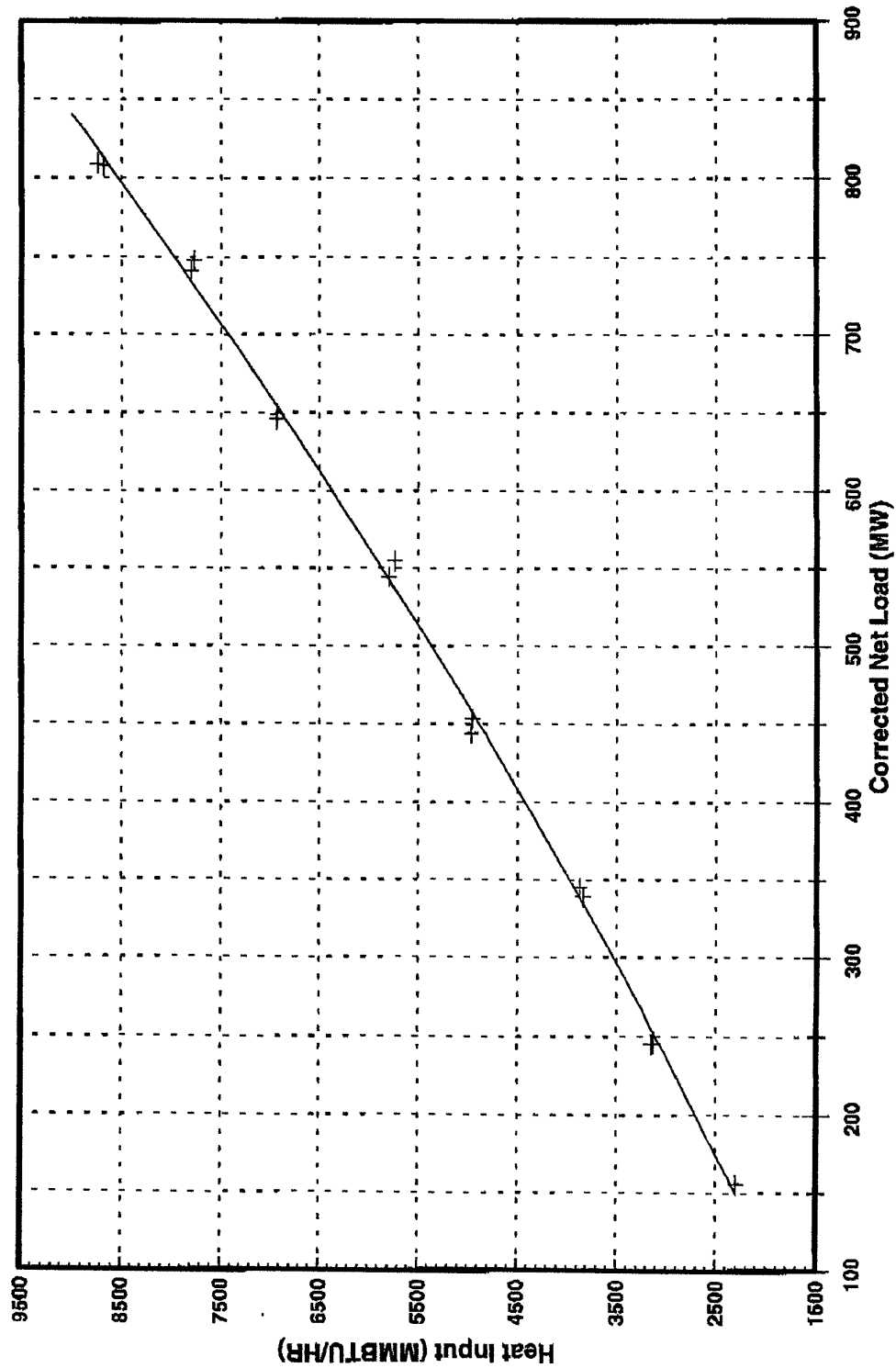
$$\text{HEATRATE(BTU/KWH)} = \frac{1000 \times \text{HEATINPUT}}{\text{MW}}$$

INCREMENTAL HEAT RATE EQUATION

$$\text{INCREMENTALHEATRATE(BTU/KWH)} = [6.986332 + 0.0054634 \times \text{MW}] \times 1000$$

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

White Bluff Unit One 1995 Heat Rate Test Results



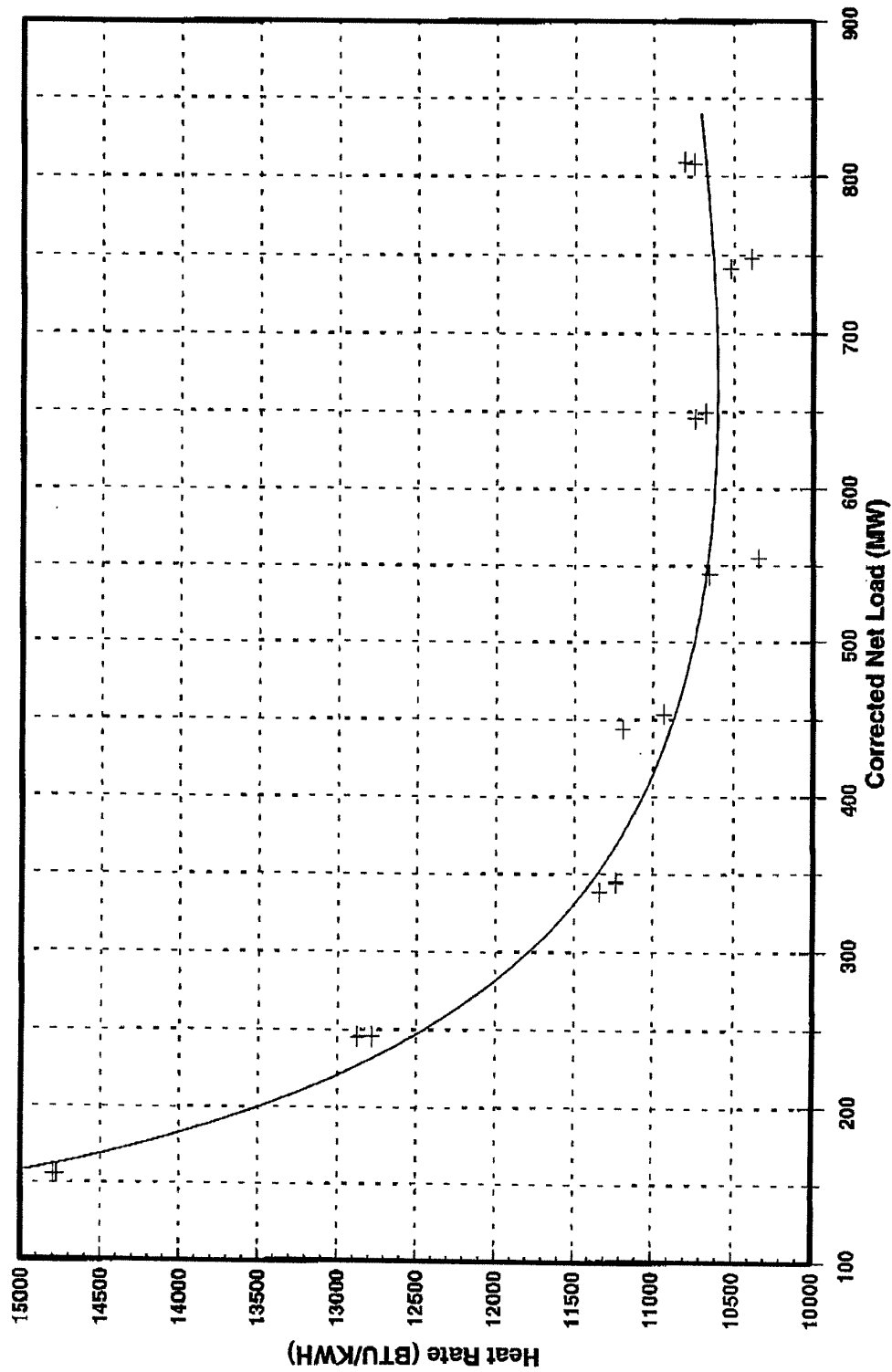
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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006118

White Bluff Unit One 1995 Heat Rate Test Results



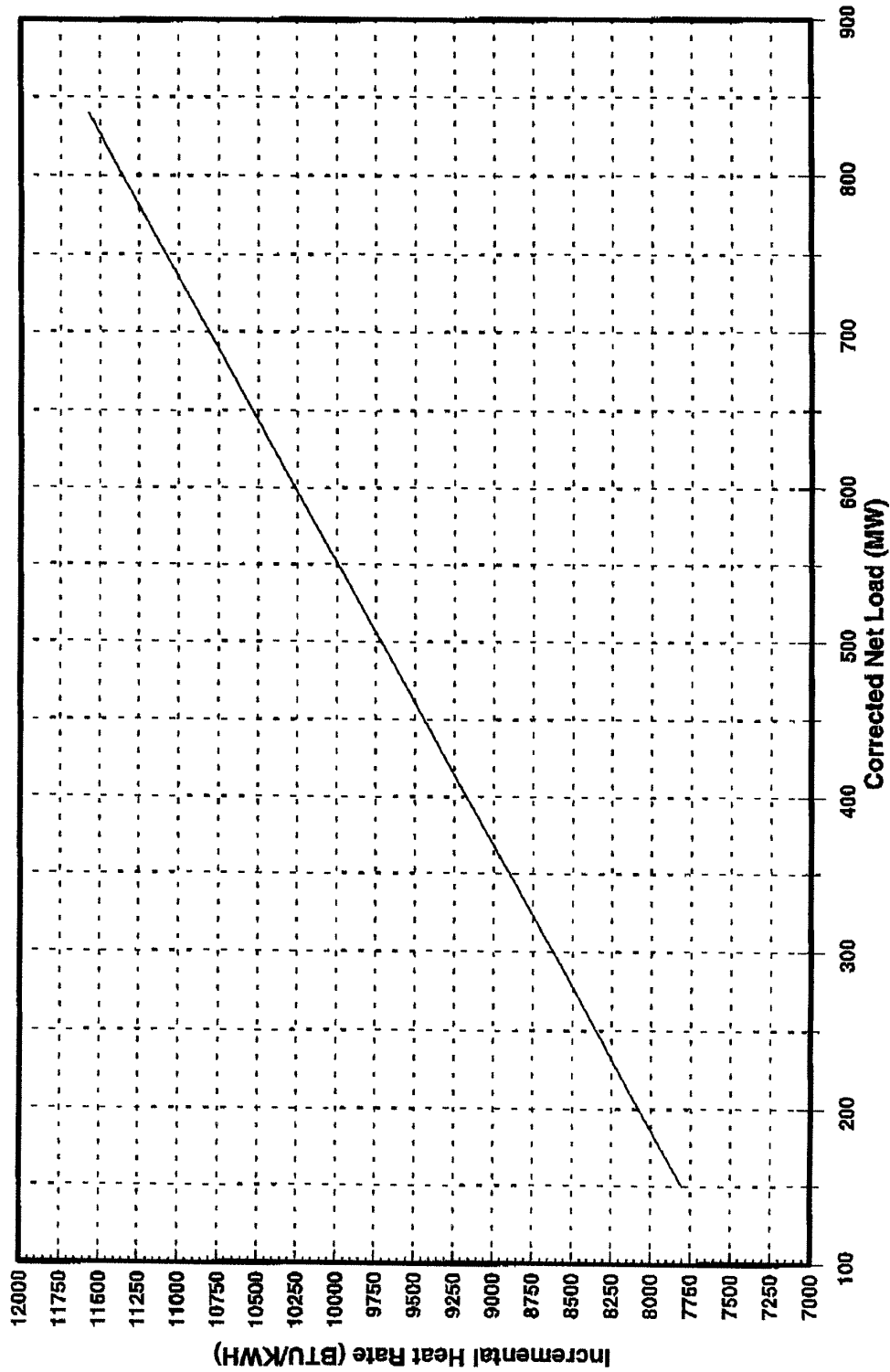
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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006119

White Bluff Unit One 1995 Heat Rate Test Results



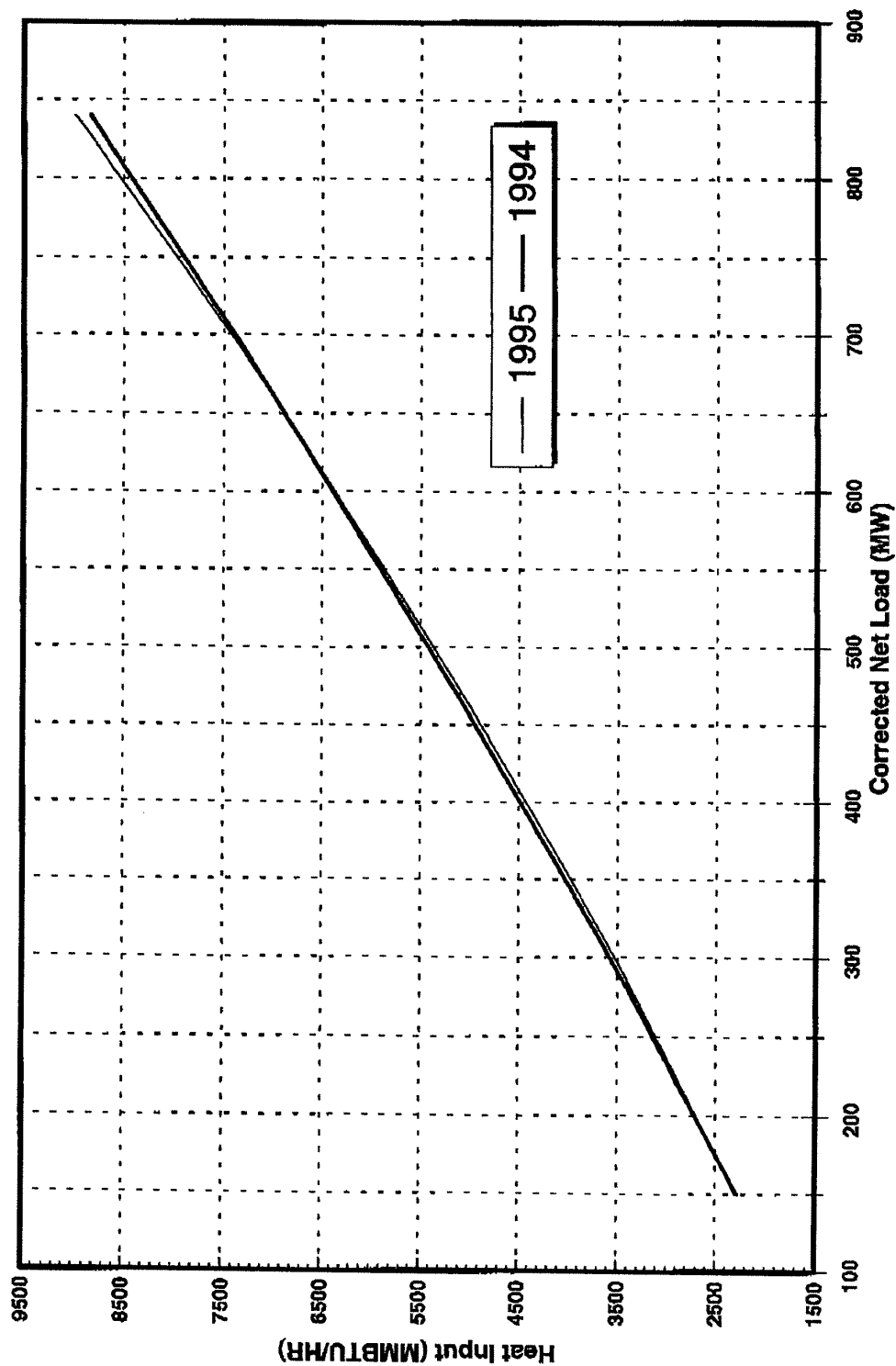
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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006120

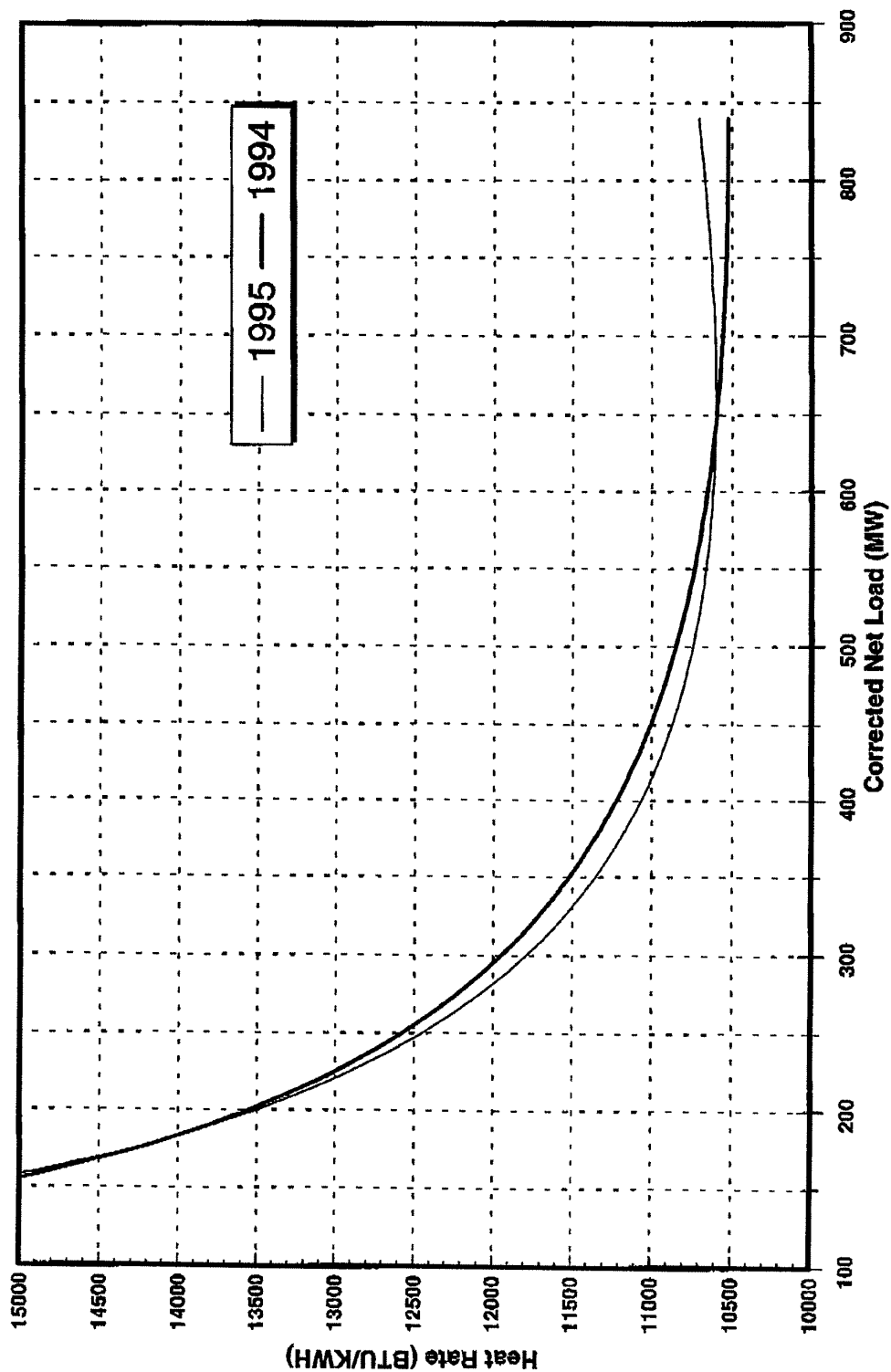
White Bluff Unit One 1995 Heat Rate Test Results



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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

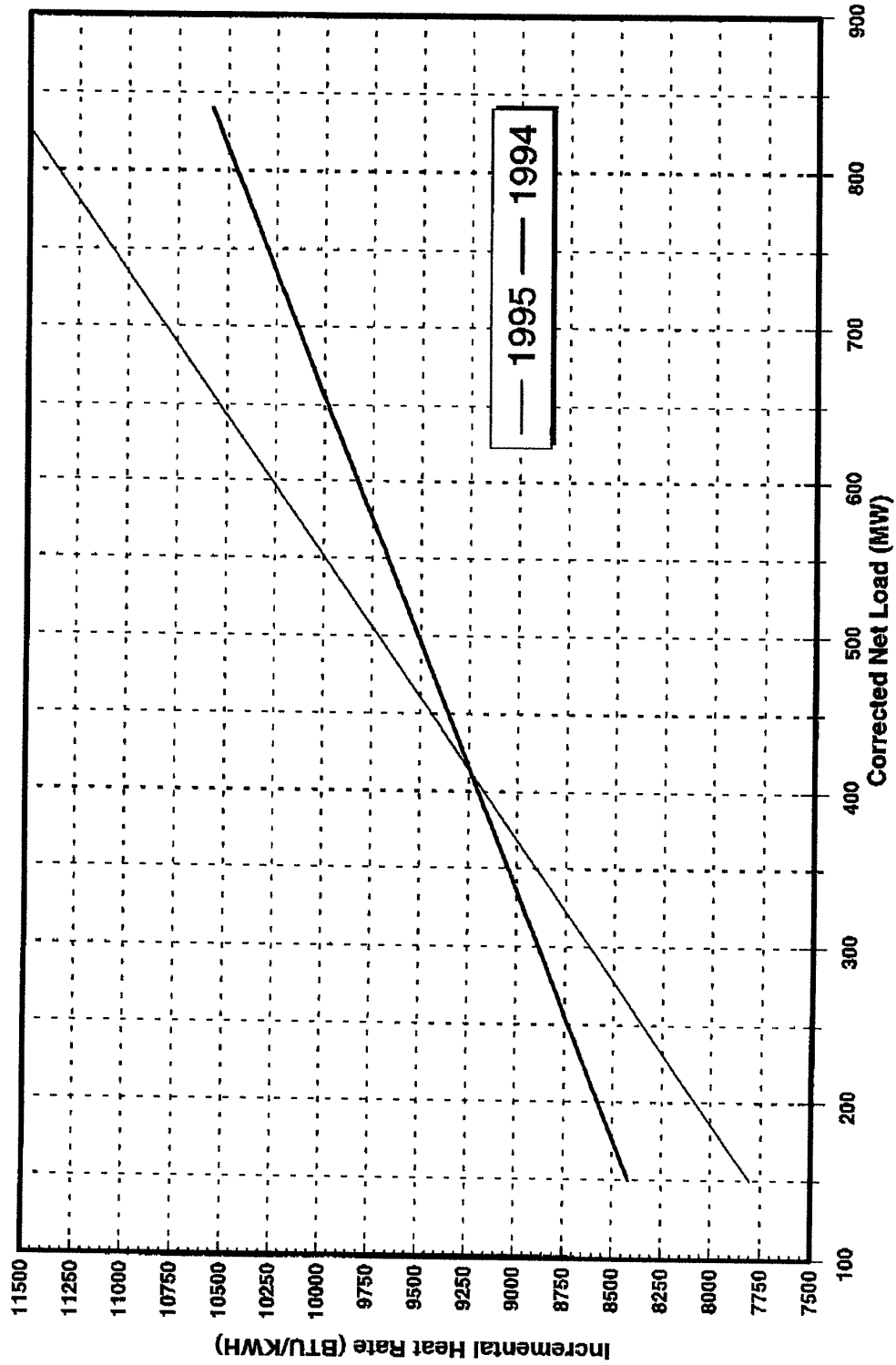
White Bluff Unit One 1994 Heat Rate Test Results



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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

White Bluff Unit One 1994 Heat Rate Test Results



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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006123

White Bluff Plant - Unit Two Heat Rate Test Results 1995

CORRECTED NET MW	HEAT INPUT MMBTU/HR
157.9900	2330.5000
160.6000	2299.8000
235.2000	3044.8000
236.1900	3016.8000
315.1100	3729.4000
316.6100	3726.1000
382.0200	4401.2000
385.7700	4399.1000
464.1100	5223.8000
467.8000	5183.7000
552.5000	5977.2000
553.6000	5951.4000
626.2300	6753.1000
631.8600	6778.6000
695.7500	7525.3000
697.6000	7456.9000

HEAT INPUT EQUATION

$$\text{HEATINPUT(MMBTU/HR)} = 953.025352 + 8.423711 \times \text{MW} + 0.001328744 \times \text{MW}^2$$

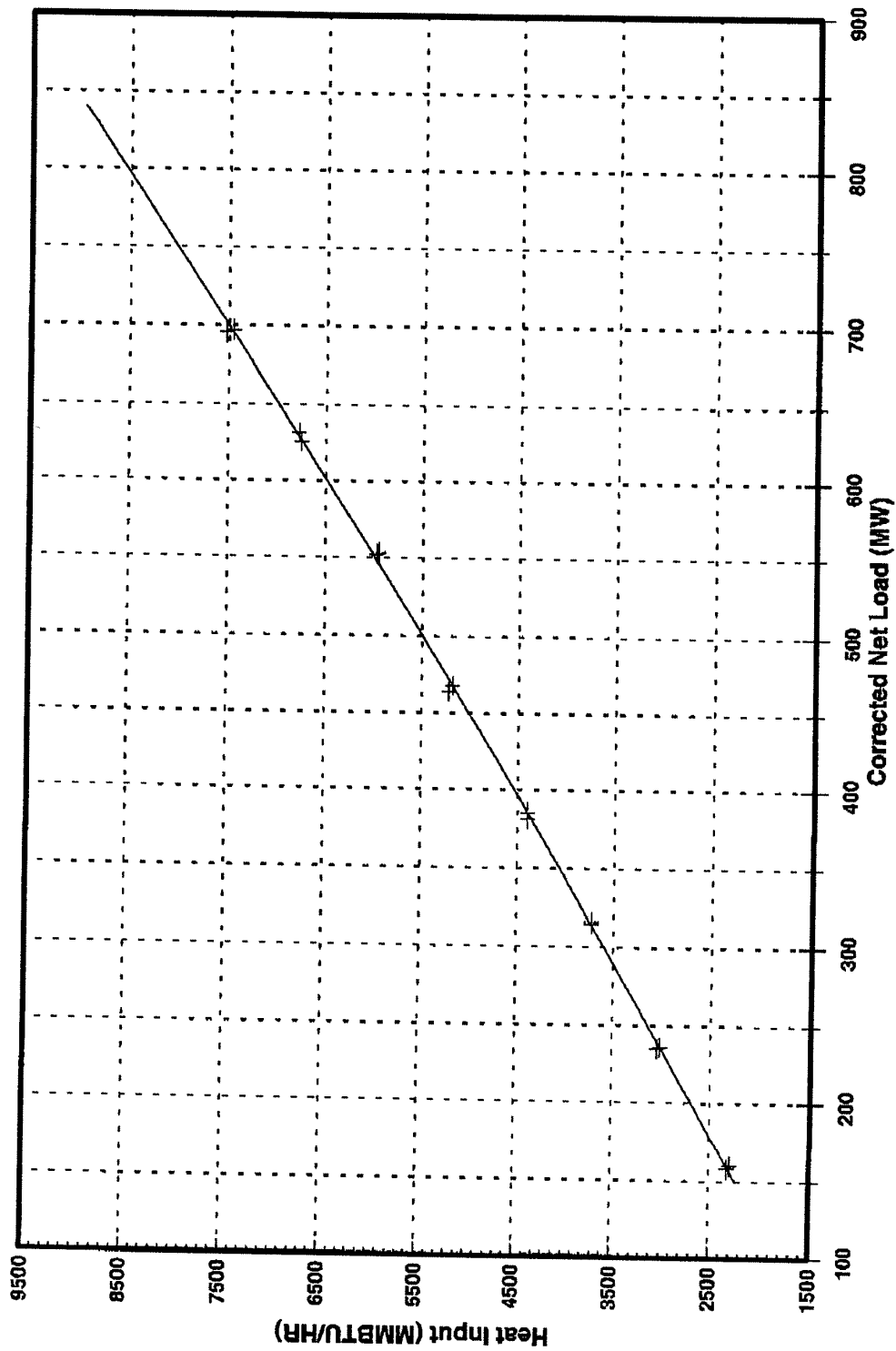
HEAT RATE EQUATION

$$\text{HEATRATE(BTU/KWH)} = \frac{1000 \times \text{HEATINPUT}}{\text{MW}}$$

INCREMENTAL HEAT RATE EQUATION

$$\text{INCREMENTALHEATRATE(BTU/KWH)} = [8.423711 + 0.0026575 \times \text{MW}] \times 1000$$

White Bluff Unit Two 1995 Heat Rate Test Results



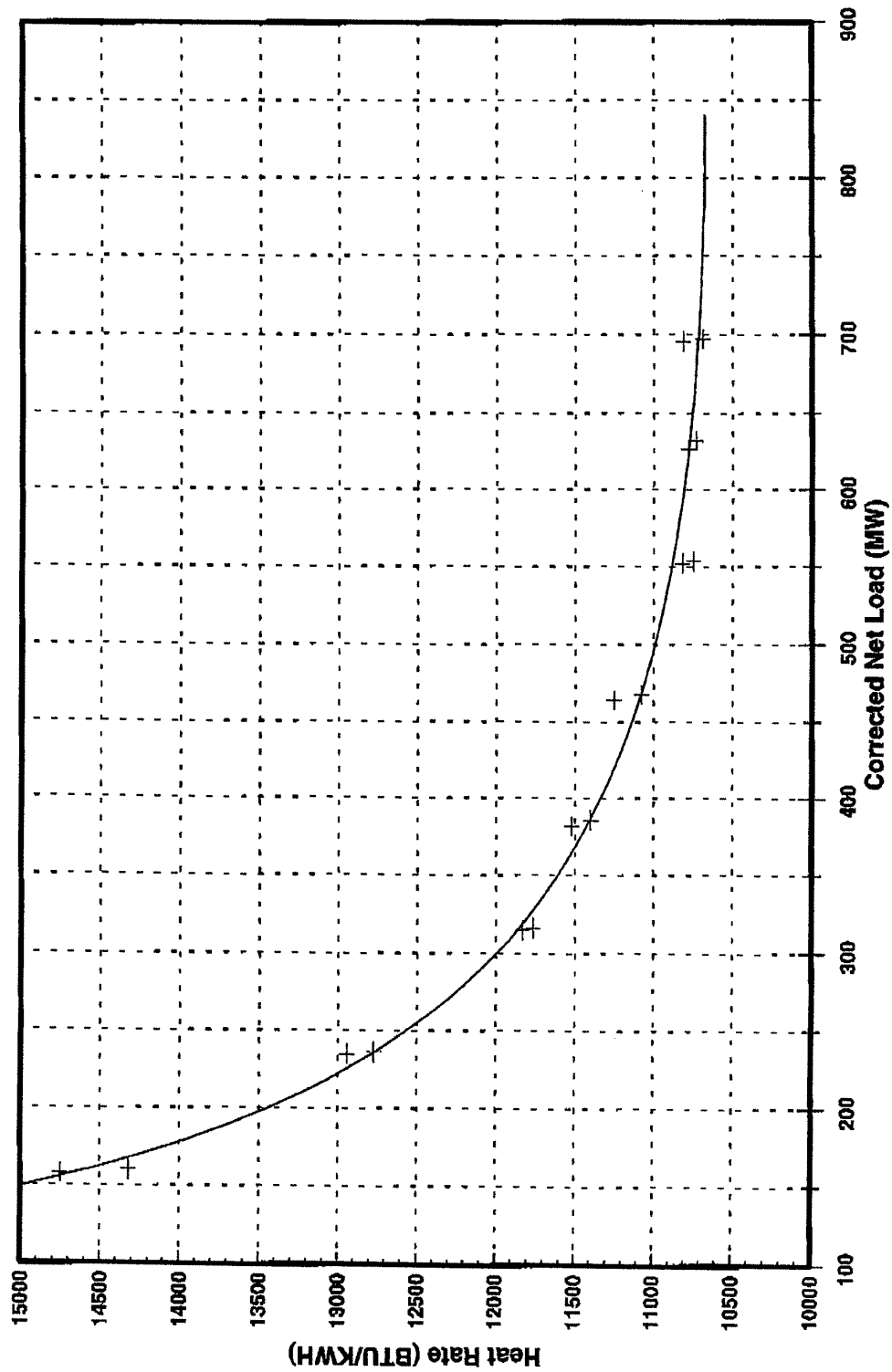
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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006125

White Bluff Unit Two **1995 Heat Rate Test Results**



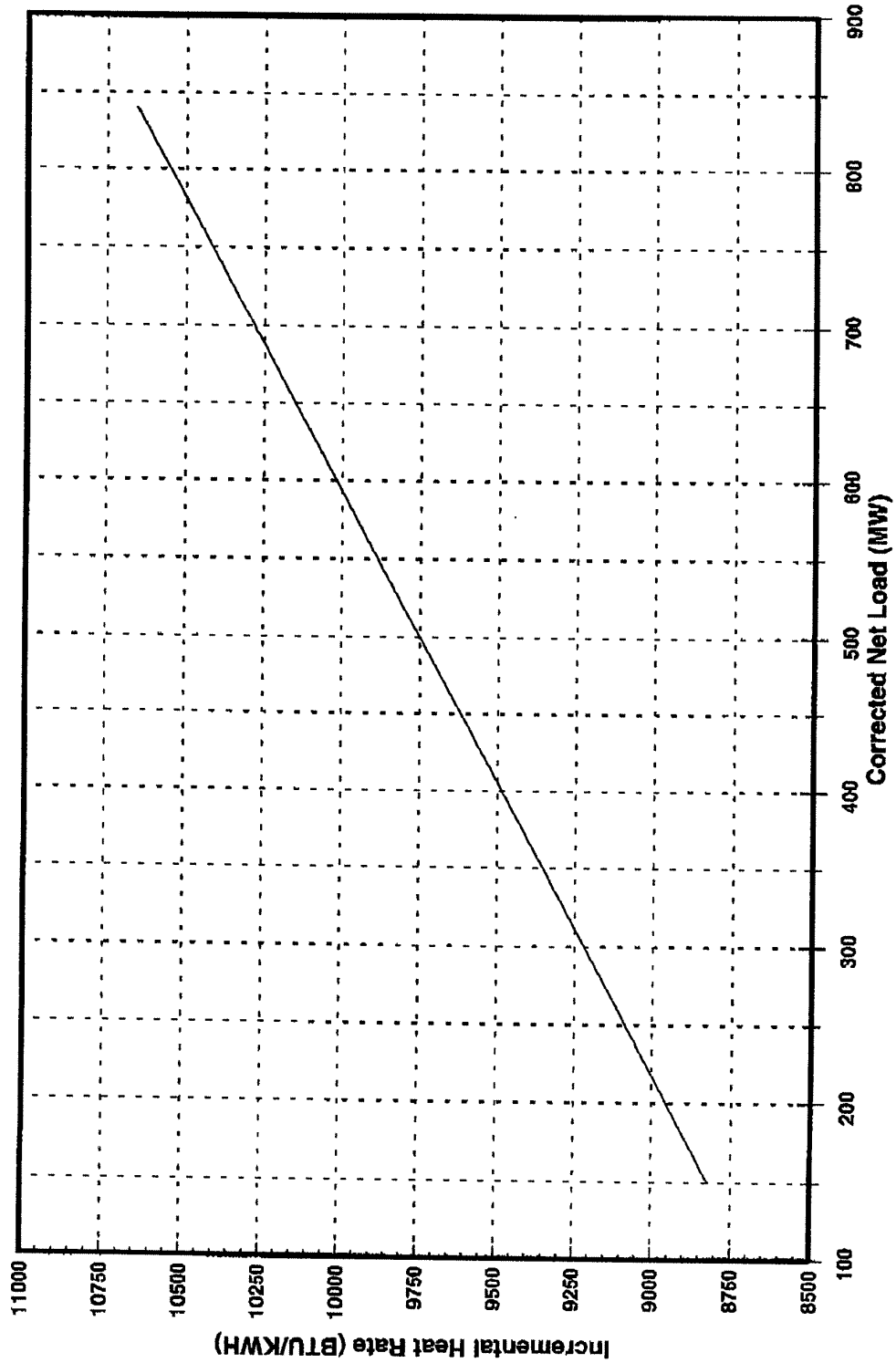
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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006126

White Bluff Unit Two **1995 Heat Rate Test Results**



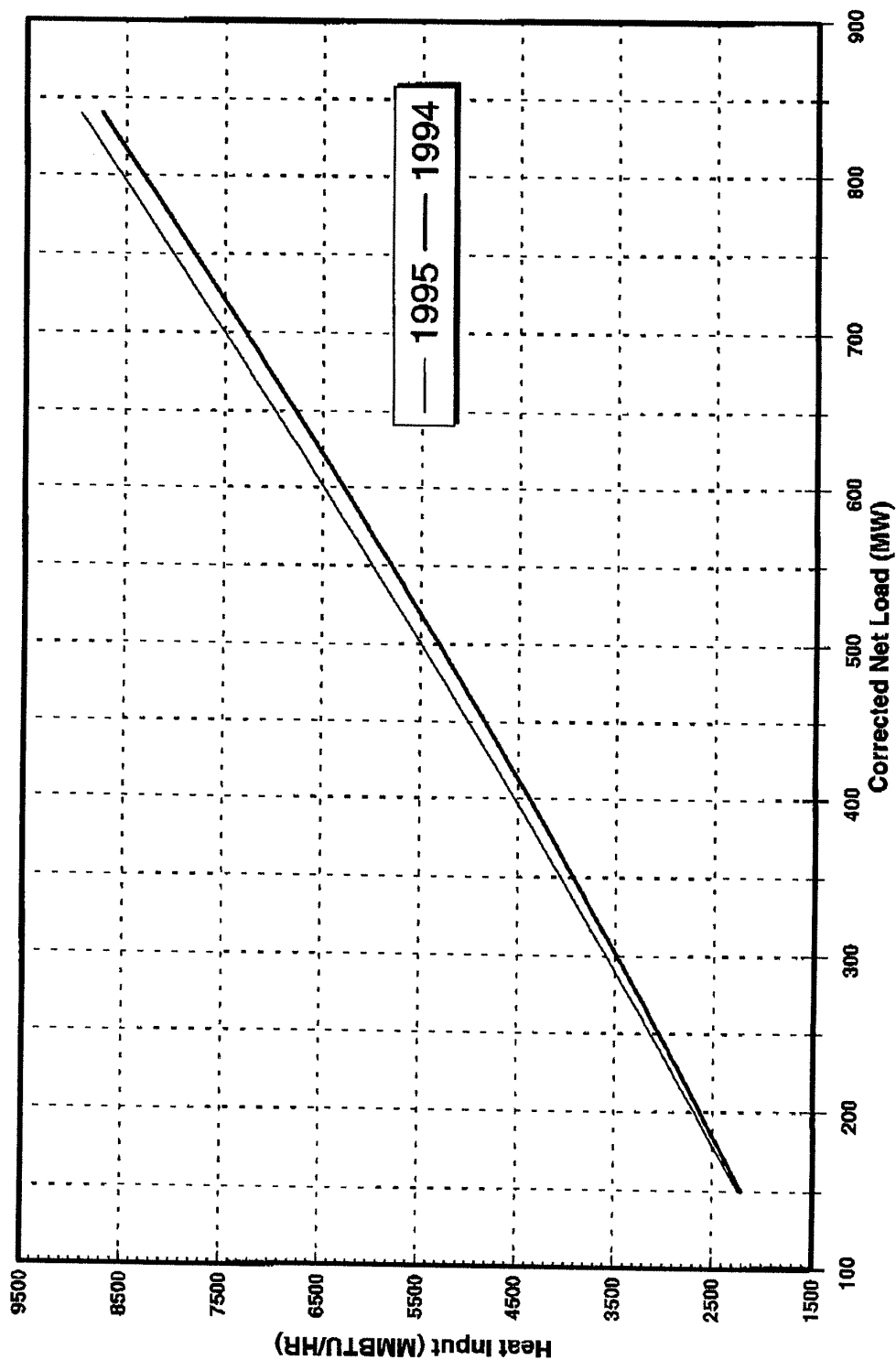
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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006127

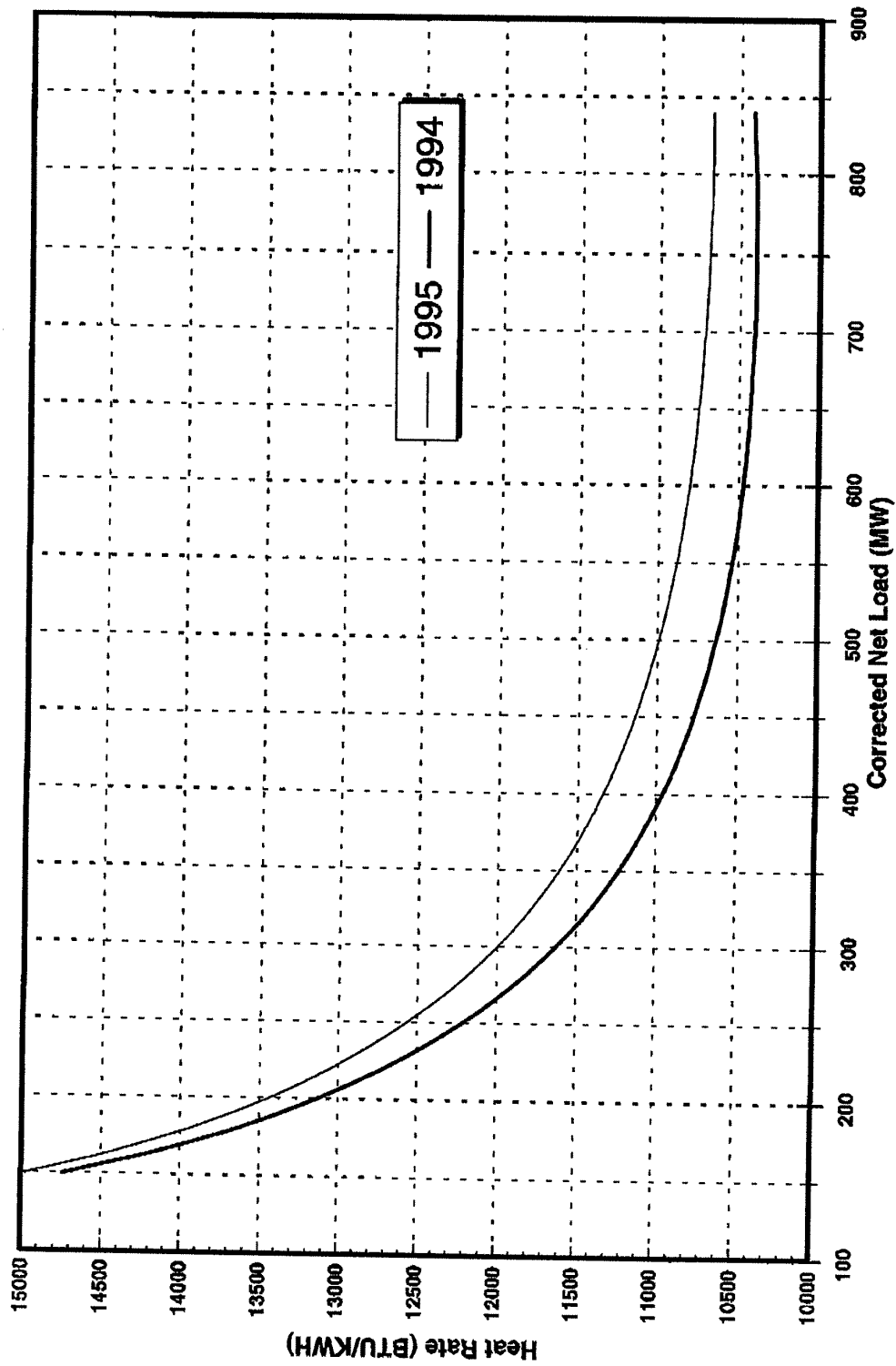
White Bluff Unit Two **1995 Heat Rate Test Results**



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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

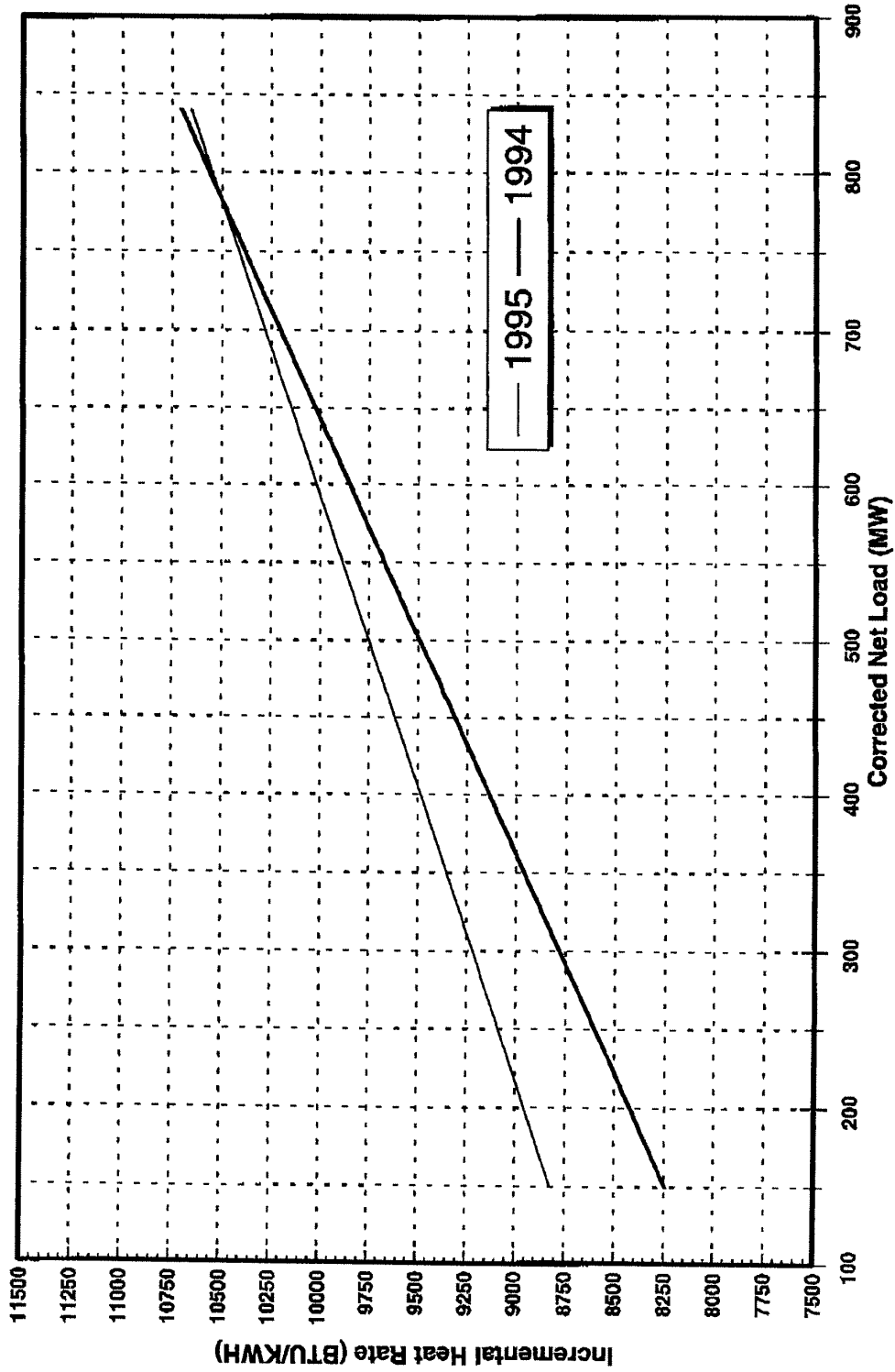
White Bluff Unit Two 1995 Heat Rate Test Results



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White Bluff Unit Two 1995 Heat Rate Test Results



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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

White Bluff Plant - Unit Two
Heat Rate Test Inputs
1995

Test Load	160	160	240	240	315	315	395	395	470	470	550	550	630	630	700	700
Test Date	6/26/95	6/26/95	6/27/95	6/27/95	6/28/95	6/28/95	6/28/95	6/28/95	6/27/95	6/27/95	6/29/95	6/29/95	6/29/95	6/29/95	6/29/95	6/29/95
Start Time	400	500	400	500	900	1000	900	1000	900	1000	1000	1100	1400	1500	1500	1600
End Time	500	600	500	600	1000	1100	1000	1100	1000	1100	1100	1200	1500	1600	1600	1700
Data File Name	2160a	2160b	2240a	2240b	2315a	2315b	2395a	2395b	2470a	2470b	2550a	2550b	2630a	2630b	2FULLa	2FULLb
Gross Generation (MW)	188	191	268	269	345	343	419	416	503	500	581	582	659	665	735	732
Aux Usage (MW)	23.1	22.5	23.5	23.5	23.7	23.7	25	25.2	26.4	26.4	28.5	28.4	29.9	30	32.3	32.1
Back Pressure (InHg)	1.600	1.600	1.750	1.750	2.240	2.290	2.430	2.520	2.720	2.780	3.600	3.620	3.800	3.910	4.000	3.980
Hot Water Temp (DEGF)	89.64	89.10	93.95	94.28	102.21	103.01	104.45	105.61	106.99	108.50	117.11	117.40	118.88	119.80	119.89	119.88
Cold Water Temp (DEGF)	81.98	81.33	83.82	84.08	89.38	90.16	89.57	90.89	89.47	90.87	96.81	97.11	95.94	96.73	94.61	94.71
Wet Bulb Temperature (DEGF)	64.10	62.80	62.40	61.80	70.50	71.80	66.70	67.00	66.50	67.30	77.50	78.40	75.10	75.40	72.50	74.10
Dry Bulb Temperature (DEGF)	68.00	66.10	68.50	66.00	78.50	81.00	77.30	81.00	77.60	81.70	91.00	93.80	87.30	87.70	76.50	78.40
Coal Flow (PPH)	266500	265900	352900	351400	427600	432700	515300	514700	603600	609900	694700	691700	787900	798200	858200	857000
Coal Heating Value (BTU/#)	8745.0	8649.0	8628.0	8585.0	8714.0	8619.0	8537.0	8551.0	8588.0	8579.0	8604.0	8604.0	8571.0	8622.0	8689.0	8781.0
Oil Flow (BBL/HR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oil Heating Value (BTU/BBL)	5748106	5748106	5748106	5748106	5748106	5748106	5748106	5748106	5748106	5748106	5748106	5748106	5748106	5748106	5748106	5748106

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

ness Information

WB_00006131

07/20/95

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CRVFIT version 1.0 Copyright(c) 1991

	I	X	Y
Data Input Index:	1	157.9900	2330.5000
Data Input Index:	2	160.6000	2299.8000
Data Input Index:	3	235.2000	3044.8000
Data Input Index:	4	236.1900	3016.8000
Data Input Index:	5	315.1100	3729.4000
Data Input Index:	6	316.6100	3726.1000
Data Input Index:	7	382.0200	4401.2000
Data Input Index:	8	385.7700	4399.1000
Data Input Index:	9	464.1100	5223.8000
Data Input Index:	10	467.8000	5183.7000
Data Input Index:	11	552.5000	5977.2000
Data Input Index:	12	553.6000	5951.4000
Data Input Index:	13	626.2300	6753.1000
Data Input Index:	14	631.8600	6778.6000
Data Input Index:	15	695.7500	7525.3000
Data Input Index:	16	697.6000	7456.9000

Curve Fit to the Power of 2.

Results:

$X^2 = 1.32874423471649E-0003$
 $X^1 = 8.42371123335924E+0000$
 $X^0 = 9.53025351923540E+0002$

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

ness Information

WB_00006132

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2160a

THE AVERAGE GROSS GENERATION IS.....	188.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	23.10	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	1.60	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	89.64	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	81.98	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	64.10	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	68.00	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	80.73	PCT
THE AVERAGE COAL FLOW IS.....	266500.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8745.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	7.66	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	84.53	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.45	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	90.91	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.09	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1194654.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-16.74	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-13.44	%
BPCHG =	3.97	
KWCHG =	-3.82	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.038167	%
THE CORRECTED GROSS GENERATION IS.....	181.09	MWe
THE CORRECTED NET GENERATION IS.....	157.99	MWe
THE UNCORRECTED NET HEAT RATE IS.....	14133.1	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	14751.4	BTU/NKW
THE TOTAL HEAT INPUT IS.....	2330.5	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2160b

THE AVERAGE GROSS GENERATION IS.....	191.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	22.50	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	1.60	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	89.10	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	81.33	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	62.80	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	66.10	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	82.98	PCT
THE AVERAGE COAL FLOW IS.....	265900.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8649.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	7.77	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	83.35	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.37	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	91.35	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.15	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1214620.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-16.63	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-12.87	%
BPCHG =	4.51	
KWCHG =	-4.31	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.043140	%
THE CORRECTED GROSS GENERATION IS.....	183.10	MWe
THE CORRECTED NET GENERATION IS.....	160.60	MWe
THE UNCORRECTED NET HEAT RATE IS.....	13648.5	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	14319.8	BTU/NKW
THE TOTAL HEAT INPUT IS.....	2299.8	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2240a

THE AVERAGE GROSS GENERATION IS.....	268.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	23.50	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	1.75	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	93.71	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	83.59	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	62.40	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	68.50	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	71.28	PCT
THE AVERAGE COAL FLOW IS.....	352900.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8628.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	10.13	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	83.70	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	94.10	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	93.99	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.38	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1734101.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-13.19	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-9.95	%
BPCHG =	3.73	
KWCHG =	-3.60	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.035961	%
THE CORRECTED GROSS GENERATION IS.....	258.70	MWe
THE CORRECTED NET GENERATION IS.....	235.20	MWe
THE UNCORRECTED NET HEAT RATE IS.....	12453.3	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	12945.8	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3044.8	MMBTU

HEAT RATE CORRECTIONS

White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2240b

THE AVERAGE GROSS GENERATION IS.....	269.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	23.50	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	1.75	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	93.71	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	83.52	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	61.80	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	66.00	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	78.81	PCT
THE AVERAGE COAL FLOW IS.....	351400.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8585.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	10.20	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	83.28	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	93.69	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	93.93	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.38	IN-HG
THE TURBINE THROTTLE FLOW IS.....	1740225.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-13.16	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-9.93	%
BPCHG =	3.72	
KWCHG =	-3.59	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.035860	%
THE CORRECTED GROSS GENERATION IS.....	259.69	MWe
THE CORRECTED NET GENERATION IS.....	236.19	MWe
THE UNCORRECTED NET HEAT RATE IS.....	12288.3	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	12772.8	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3016.8	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2315a

THE AVERAGE GROSS GENERATION IS.....	345.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	23.70	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.24	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	101.92	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	89.09	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	70.50	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	78.50	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	67.96	PCT
THE AVERAGE COAL FLOW IS.....	427600.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8714.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	12.83	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	90.05	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	94.49	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	93.53	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.54	IN-HG
THE TURBINE THROTTLE FLOW IS.....	2247149.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-9.22	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-7.95	%
BPCHG =	1.40	
KWCHG =	-1.38	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.013773	%
THE CORRECTED GROSS GENERATION IS.....	340.31	MWe
THE CORRECTED NET GENERATION IS.....	316.61	MWe
THE UNCORRECTED NET HEAT RATE IS.....	11597.0	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	11768.6	BTU/NKW
THE TOTAL HEAT INPUT IS.....	3726.1	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2315b

THE AVERAGE GROSS GENERATION IS..... 343.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 23.70 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 2.29 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 102.70 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 89.85 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 71.80 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 81.00 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 64.67 PCT
THE AVERAGE COAL FLOW IS..... 432700.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8619.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 12.85 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 90.83 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 94.72 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 93.73 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 2.56 IN-HG
THE TURBINE THROTTLE FLOW IS..... 2239667.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -9.03 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -7.89 %
BPCHG = 1.25
KWCHG = -1.24
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.012356 %

THE CORRECTED GROSS GENERATION IS..... 338.81 MWe

THE CORRECTED NET GENERATION IS..... 315.11 MWe

THE UNCORRECTED NET HEAT RATE IS..... 11680.1 BTU/NKW

THE CORRECTED NET HEAT RATE IS..... 11835.2 BTU/NKW

THE TOTAL HEAT INPUT IS..... 3729.4 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2395a

THE AVERAGE GROSS GENERATION IS.....	419.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	25.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.43	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	104.45	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	89.57	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	66.70	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	77.30	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	57.98	PCT
THE AVERAGE COAL FLOW IS.....	515300.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8537.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	14.88	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	88.12	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	95.28	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	96.73	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	2.97	IN-HG
THE TURBINE THROTTLE FLOW IS.....	2712103.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-7.30	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-5.41	%
BPCHG =	2.05	
KWCHG =	-2.00	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.020040	%
THE CORRECTED GROSS GENERATION IS.....	410.77	MWe
THE CORRECTED NET GENERATION IS.....	385.77	MWe
THE UNCORRECTED NET HEAT RATE IS.....	11165.3	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	11403.5	BTU/NKW
THE TOTAL HEAT INPUT IS.....	4399.1	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2395b

THE AVERAGE GROSS GENERATION IS..... 416.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 25.20 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 2.52 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 105.61 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 90.69 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 67.00 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 81.00 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 48.40 PCT
THE AVERAGE COAL FLOW IS..... 514700.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8551.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 14.92 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 88.71 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 96.09 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 98.07 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 3.10 IN-HG
THE TURBINE THROTTLE FLOW IS..... 2701093.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -7.03 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -4.98 %
BPCHG = 2.20
KWCHG = -2.16
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.021570 %

THE CORRECTED GROSS GENERATION IS..... 407.22 MWe

THE CORRECTED NET GENERATION IS..... 382.02 MWe

THE UNCORRECTED NET HEAT RATE IS..... 11262.0 BTU/NKW

THE CORRECTED NET HEAT RATE IS..... 11521.0 BTU/NKW

THE TOTAL HEAT INPUT IS..... 4401.2 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2470a

THE AVERAGE GROSS GENERATION IS.....	503.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	26.40	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.72	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	106.99	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	89.47	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	66.50	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	77.60	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	56.36	PCT
THE AVERAGE COAL FLOW IS.....	603600.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8588.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	17.52	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	88.46	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	95.53	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	96.54	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.31	IN-HG
THE TURBINE THROTTLE FLOW IS.....	3238989.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-5.42	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-3.71	%
BPCHG =	1.81	
KWCHG =	-1.78	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.017815	%
THE CORRECTED GROSS GENERATION IS.....	494.20	MWe
THE CORRECTED NET GENERATION IS.....	467.80	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10876.5	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	11081.2	BTU/NKW
THE TOTAL HEAT INPUT IS.....	5183.7	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2470b

THE AVERAGE GROSS GENERATION IS.....	500.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	26.40	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	2.78	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	108.50	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	90.87	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	67.30	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	81.70	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	47.50	PCT
THE AVERAGE COAL FLOW IS.....	608900.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8579.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	17.63	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	89.07	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	96.35	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	98.15	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	3.40	IN-HG
THE TURBINE THROTTLE FLOW IS.....	3226186.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-5.28	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-3.41	%
BPCHG =	1.97	
KWCHG =	-1.93	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.019340	%
THE CORRECTED GROSS GENERATION IS.....	490.51	MWe
THE CORRECTED NET GENERATION IS.....	464.11	MWe
THE UNCORRECTED NET HEAT RATE IS.....	11029.9	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	11255.3	BTU/NKW
THE TOTAL HEAT INPUT IS.....	5223.8	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2550a

THE AVERAGE GROSS GENERATION IS..... 581.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 28.50 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 3.60 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 117.11 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 96.81 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 77.50 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 91.00 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 54.57 PCT
THE AVERAGE COAL FLOW IS..... 694700.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8604.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 20.30 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 95.78 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 95.78 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 96.81 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 3.60 IN-HG
THE TURBINE THROTTLE FLOW IS..... 3820259.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -2.40 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -2.40 %
BPCHG = 0.00
KWCHG = 0.00
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.000000 %

THE CORRECTED GROSS GENERATION IS..... 581.00 MWe

THE CORRECTED NET GENERATION IS..... 552.50 MWe

THE UNCORRECTED NET HEAT RATE IS..... 10818.5 BTU/NKW

THE CORRECTED NET HEAT RATE IS..... 10818.5 BTU/NKW

THE TOTAL HEAT INPUT IS..... 5977.2 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2550b

THE AVERAGE GROSS GENERATION IS..... 582.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 28.40 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 3.62 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 117.40 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 97.11 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 78.40 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 93.80 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 50.00 PCT
THE AVERAGE COAL FLOW IS..... 691700.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8604.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 20.29 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 96.07 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 96.07 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 97.11 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 3.62 IN-HG
THE TURBINE THROTTLE FLOW IS..... 3828762.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -2.34 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -2.34 %
BPCHG = 0.00
KWCHG = 0.00
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.000000 %

THE CORRECTED GROSS GENERATION IS..... 582.00 MWe

THE CORRECTED NET GENERATION IS..... 553.60 MWe

THE UNCORRECTED NET HEAT RATE IS..... 10750.3 BTU/NKW

THE CORRECTED NET HEAT RATE IS..... 10750.3 BTU/NKW

THE TOTAL HEAT INPUT IS..... 5951.4 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2630a

THE AVERAGE GROSS GENERATION IS..... 659.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 29.90 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 3.80 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 118.88 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 95.94 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 75.10 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 87.30 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 57.20 PCT
THE AVERAGE COAL FLOW IS..... 787900.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8571.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 22.94 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 93.85 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 95.76 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 97.85 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 3.99 IN-HG
THE TURBINE THROTTLE FLOW IS..... 4339823.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -1.63 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -1.20 %
BPCHG = 0.44
KWCHG = -0.44
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.004377 %

THE CORRECTED GROSS GENERATION IS..... 656.13 MWe
THE CORRECTED NET GENERATION IS..... 626.23 MWe

THE UNCORRECTED NET HEAT RATE IS..... 10734.5 BTU/NKW
THE CORRECTED NET HEAT RATE IS..... 10783.8 BTU/NKW

THE TOTAL HEAT INPUT IS..... 6753.1 MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2630b

THE AVERAGE GROSS GENERATION IS.....	665.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	30.00	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	3.91	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	119.80	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	96.73	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	75.40	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	87.70	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	57.04	PCT
THE AVERAGE COAL FLOW IS.....	786200.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8622.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	23.07	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	93.87	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	95.78	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	98.64	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	4.11	IN-HG
THE TURBINE THROTTLE FLOW IS.....	4393357.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-1.37	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-0.90	%
BPCHG =	0.48	
KWCHG =	-0.47	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.004742	%
THE CORRECTED GROSS GENERATION IS.....	661.86	MWe
THE CORRECTED NET GENERATION IS.....	631.86	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10675.0	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10728.0	BTU/NKW
THE TOTAL HEAT INPUT IS.....	6778.6	MMBTU

HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2fulla

THE AVERAGE GROSS GENERATION IS.....	735.00	MWe
THE AVERAGE AUXILIARY USAGE IS.....	32.30	MWe
THE AVERAGE CONDENSER BACKPRESSURE IS.....	4.00	IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE CONDENSER IS.....	119.89	DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE CONDENSER IS.....	94.61	DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS.....	72.50	DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS.....	76.50	DEG F
THE COMPUTED RELATIVE HUMIDITY IS.....	82.61	PCT
THE AVERAGE COAL FLOW IS.....	858200.00	LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS.....	8689.00	BTU/LB
THE AVERAGE OIL FLOW IS.....	0.00	BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS.....	0.00	BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS.....	341000	GPM
THE COOLING TOWER RANGE IS.....	25.28	DEG F
THE DESIGN COLD WATER TEMPERATURE IS.....	91.47	DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS.....	94.51	DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	97.65	DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE IS.....	4.34	IN-HG
THE TURBINE THROTTLE FLOW IS.....	4886203.00	LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER BACKPRESSURE IS.....	-1.00	%
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM CONDENSER COOLING WATER TEMPERATURE SATURATION PRESSURE IS.....	-0.31	%
BPCHG =	0.70	
KWCHG =	-0.70	
THE BACKPRESSURE CORRECTION FACTOR IS.....	1.006981	%
THE CORRECTED GROSS GENERATION IS.....	729.90	MWe
THE CORRECTED NET GENERATION IS.....	697.60	MWe
THE UNCORRECTED NET HEAT RATE IS.....	10611.8	BTU/NKW
THE CORRECTED NET HEAT RATE IS.....	10689.3	BTU/NKW
THE TOTAL HEAT INPUT IS.....	7456.9	MMBTU

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

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HEAT RATE CORRECTIONS White Bluff Unit Two

MEASURED TEST INPUTS FROM FILE 2fullb

THE AVERAGE GROSS GENERATION IS..... 732.00 MWe
THE AVERAGE AUXILIARY USAGE IS..... 32.10 MWe
THE AVERAGE CONDENSER BACKPRESSURE IS..... 3.98 IN-HG
THE AVERAGE CIRCULATING WATER TEMPERATURE FROM THE
CONDENSER IS..... 119.88 DEG F
THE AVERAGE CIRCULATING WATER TEMPERATURE TO THE
CONDENSER IS..... 94.71 DEG F
THE AVERAGE AMBIENT WET BULB TEMPERATURE IS..... 74.10 DEG F
THE AVERAGE AMBIENT DRY BULB TEMPERATURE IS..... 78.40 DEG F
THE COMPUTED RELATIVE HUMIDITY IS..... 81.94 PCT
THE AVERAGE COAL FLOW IS..... 857000.00 LB/HR
THE AVERAGE COAL HIGH HEATING VALUE IS..... 8781.00 BTU/LB
THE AVERAGE OIL FLOW IS..... 0.00 BBL/HR
THE AVERAGE OIL HIGH HEATING VALUE IS..... 0.00 BTU/BBL

CALCULATED RESULTS

THE COOLING TOWER CIRCULATING WATER FLOW IS..... 341000 GPM
THE COOLING TOWER RANGE IS..... 25.17 DEG F
THE DESIGN COLD WATER TEMPERATURE IS..... 92.09 DEG F
THE DESIGN MAXIMUM COLD WATER TEMPERATURE IS..... 94.53 DEG F
THE AVERAGE MAXIMUM CONDENSER COOLING WATER
TEMPERATURE IS..... 97.16 DEG F
THE SATURATION PRESSURE FOR THE AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE IS..... 4.25 IN-HG
THE TURBINE THROTTLE FLOW IS..... 4863299.00 LB/HR
THE HEAT RATE CORRECTION FACTOR FOR CONDENSER
BACKPRESSURE IS..... -1.05 %
THE HEAT RATE CORRECTION FACTOR FOR AVERAGE MAXIMUM
CONDENSER COOLING WATER TEMPERATURE SATURATION
PRESSURE IS..... -0.48 %
BPCHG = 0.57
KWCHG = -0.57
THE BACKPRESSURE CORRECTION FACTOR IS..... 1.005696 %
THE CORRECTED GROSS GENERATION IS..... 727.85 MWe
THE CORRECTED NET GENERATION IS..... 695.75 MWe
THE UNCORRECTED NET HEAT RATE IS..... 10752.0 BTU/NKW
THE CORRECTED NET HEAT RATE IS..... 10816.1 BTU/NKW
THE TOTAL HEAT INPUT IS..... 7525.3 MMBTU

COAL HEAT RATE TEST DATA

Plant: White Bluff

Unit: 1

Data Needed For Calculations									
Date	7/30/96	8/11/96	8/11/96	8/12/96	8/12/96	8/12/96	8/12/96	8/12/96	8/12/96
File Name	1550A	1650A	1650B	1750A	1750B	1750B	1815A	1815B	
Gross MW	582.578	684	687	784	785	785	841	835	
Aux MW	28.4	34.2	34.2	37.7	37.2	37.2	39.6	39.8	
Cond Back Press	4.19 (lps)	3.39	3.45	3.92	3.97	3.97	4.46	4.42	
Circ Water Out T	125.05	115.64	116.32	120.46	120.98	120.98	125.63	124.64	
Circ Water In T	92.93	94.07	94.74	96.11	96.58	96.58	98.84	98.57	
Wet Bulb T	73.34	73.20	70.06	73.23	74.23	74.23	77.03	76.97	
Dry Bulb T	75.37	74.19	70.96	79.65	81.64	81.64	90.39	92.71	
Coal Flow pph	685900	792500	792900	904800	909000	909000	974000	967100	
Coal HHV Btu/lb	8370	8475	8569	8590	8615	8615	8688	8596	
Oil Flow bph	4	4	4	4	4	4	4	4	
Oil HHV Btu/bbl									

Outputs									
Corr Gross MW	572.12	571.22	676.78	779.45	781.26	781.26	839.89	834.00	
Corr Net MW	543.72	542.72	642.58	741.75	749.06	749.06	800.29	794.20	
Test Net Ht Rate	10445.7	10573.5	10450.8	10421.4	10472.1	10472.1	10559.2	10454.2	
Corr Net Ht Rate	10558.8	10685.9	10568.2	10509.4	10524.7	10524.7	10573.8	10467.4	
Heat In MM/Btu	5741.0	5799.4	6790.9	7772.2	7831.0	7831.0	8462.1	8313.2	
Test Net MW	553.6	545.5	649.8	746.3	747.8	747.8	801.4	795.2	

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

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COAL HEAT RATE TEST DATA

Plant: White Bluff

Unit: 1

Data Needed For Calculations				
Date	8/13/96	8/13/96	8/13/96	8/13/96
File Name	1450a96b.	1450b96b.	1550a96b.	1550b96b. dta
Gross MW	477	478	584	585
Aux MW	25.6	25.4	31.5	31.6
Cond Back Press	2.64	2.66	2.88	2.96
Circ Water Out T	107.8	108.00	110.18	111.11
Circ Water In T	94.99	92.17	91.45	92.38
Wet Bulb T	69.53	67.80	67.32	69.12
Dry Bulb T	72.78	69.59	68.61	72.07
Coal Flow pph	543300	548100	657300	662300
Coal HHV Btu/lb	8692	8681	8598	8632
Oil Flow bph				
Oil HHV Btu/bbl				

(All w/ 2 pp operation)

Outputs				
Corr Gross MW	470.73	470.22	575.56	577.94
Corr Net MW	445.13	444.82	544.06	546.34
Test Net Ht Rate	10461.6	10512.7	10228.9	10330.6
Corr Net Ht Rate	10609.0	10696.5	10387.6	10464.2
Heat In MMBtu	4722.4	4758.1	5651.5	5717.0
Test Net MW	451.4	452.6	552.5	553.4

COAL HEAT RATE TEST DATA

Plant: White Bluff

Unit: 1

Data Needed For Calculations									
Date	7/31/96	7/30/96	8/1/96	8/1/96	8/1/96	7/31/96	7/31/96	7/31/96	7/31/96
File Name	1160A	1250A	1250B	1350A	1350B	1450A	1450B	1450C	1450D
Gross MW	188	278	281	373	378	479	472	472	472
Aux MW	24	24.4	24.5	25.3	25.8	26.7	26.8	26.8	26.8
Cond Back Press	2.14 (1pp)	2.36 (1pp)	2.38 (1pp)	2.84 (1pp)	2.78 (1pp)	3.29 (1pp)	3.25 (1pp)	3.25 (1pp)	3.25 (1pp)
Circ Water Out T	102.94	105.97	106.19	112.41	111.71	116.88	116.38	116.38	116.38
Circ Water In T	88.58	88.05	88.13	89.89	89.29	89.06	88.78	88.78	88.78
Wet Bulb T	72.44	71.02	70.76	71.15	70.46	71.63	71.33	71.33	71.33
Dry Bulb T	72.90	72.79	72.32	72.29	71.39	72.09	72.47	72.47	72.47
Coal Flow pph	265700	355700	358700	452500	449600	566800	565400	565400	565400
Coal HHV Btu/lb	8536	8364	8384	8683	8591	8521	8519	8519	8519
Oil Flow bph	φ	φ	φ	φ	φ	φ	φ	φ	φ
Oil HHV Btu/bbl									

Outputs									
Corr Gross MW	184.36	272.85	275.83	366.92	371.14	472.62	464.62	464.62	464.62
Corr Net MW	160.36	248.45	251.33	341.62	345.34	445.92	437.82	437.82	437.82
Test Net Ht Rate	13.229.4	11731.4	11724.5	11300.1	10966.8	10678.1	10519.1	10519.1	10519.1
Corr Net Ht Rate	14143.0	11974.6	11965.7	11501.1	11184.8	10830.9	11001.4	11001.4	11001.4
Heat In MMBtu	2268.0	2975.1	3007.3	3929.1	3862.5	4829.7	4816.6	4816.6	4816.6
Test Net MW	164	253.6	256.5	347.7	352.2	452.3	445.2	445.2	445.2

EQ#	COEF A	COEF B	COEF C	R^2	R^2 C	EQUATION
1	0.5836D+03	0.9645D+01	0.0000D+00	0.9976	0.9974	$Y=A+B*X$
2	0.0000D+00	0.1064D+02	0.0000D+00	0.0000	0.0000	$Y=B*X$
3	0.4534D-03	-.4616D-06	0.0000D+00	0.9005	0.8934	$Y=1/(A+B*X)$
4	-.1337D+03	0.1045D+02	0.1206D+06	0.9992	0.9990	$Y=A+B*X+C/X$
5	0.8416D+04	-.1158D+07	0.0000D+00	0.7834	0.7680	$Y=A+B/X$
6	0.5205D-04	0.6534D-01	0.0000D+00	0.9825	0.9812	$Y=X/(A*X+B)$
7	0.1227D+05	-.4016D+07	0.3904D+09	0.9654	0.9601	$Y=A+B/X+C/X*X$
8	0.1040D+04	0.7287D+01	0.2435D-02	0.9995	0.9995	$Y=A+B*X+C*X*X$
9	0.1193D+02	-.1995D-02	0.0000D+00	0.0000	0.0000	$Y=A*X+B*X*X$
10	0.3227D+02	0.8259D+00	0.0000D+00	0.9925	0.9920	$Y=A*X^B$
11	0.1827D+04	0.1002D+01	0.0000D+00	0.9811	0.9798	$Y=A*B^X$
12	0.9757D+04	0.0000D+00	0.0000D+00	0.9056	0.8989	$Y=B^(1/X)$
13	0.2053D+04	0.2792D-03	0.0000D+00	0.9727	0.9708	$Y=A*X^(B*X)$
14	0.1158D+05	-.5616D+02	0.0000D+00	0.9305	0.9255	$Y=A*X^(B/X)$
15	0.1827D+04	0.1997D-02	0.0000D+00	0.9811	0.9798	$Y=A*e^(B*X)$
16	0.9757D+04	-.2600D+03	0.0000D+00	0.9056	0.8989	$Y=A*e^(B/X)$
17	-.1798D+05	0.3835D+04	0.0000D+00	0.9327	0.9279	$Y=A+B*\ln X$
18	0.1435D-02	-.1990D-03	0.0000D+00	0.9893	0.9885	$Y=1/(A+B*\ln X)$
19	0.1450D+03	0.1001D+01	0.5161D+00	0.9995	0.9994	$Y=A*B^X*X^C$
21	0.9925D+04	0.1139D+04	-.6559D+06	0.9987	0.9985	$Y=A*e^((X-B)/2)$
22	0.1299D+04	0.3148D+01	0.6692D+01	0.9995	0.9995	$Y=A*e^((\ln X-B)^2/C)$
24	0.5858D+04	0.1296D+04	0.5161D+00	0.9995	0.9994	$Y=A*(X/B)^C*e^(x/b)$
25	0.8344D-09	-.7610D+03	0.1268D-03	0.9910	0.9896	$Y=1/(A*(X+B)^2+C)$

BASED ON THE VALUE OF RC()--BEST FITTING CURVE WAS NUMBER 8

With retest of 450 & 550
 @ 2 circ. pps.

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006152

EQ#	COEF A	COEF B	COEF C	R^2	R^2 C	EQUATION
1	0.6100D+03	0.9647D+01	0.0000D+00	0.9989	0.9988	$Y=A+B*X$
2	0.0000D+00	0.1069D+02	0.0000D+00	0.0000	0.0000	$Y=B*X$
3	0.4520D-03	-0.4610D-06	0.0000D+00	0.8943	0.8868	$Y=1/(A+B*X)$
4	0.1043D+03	0.1021D+02	0.8513D+05	0.9996	0.9996	$Y=A+B*X+C/X$
5	0.8459D+04	-0.1165D+07	0.0000D+00	0.7924	0.7776	$Y=A+B/X$
6	0.5047D-04	0.6556D-01	0.0000D+00	0.9838	0.9827	$Y=X/(A*X+B)$
7	0.1227D+05	-0.3992D+07	0.3862D+09	0.9712	0.9668	$Y=A+B/X+C/X*X$
8	0.9104D+03	0.8098D+01	0.1599D-02	0.9997	0.9997	$Y=A+B*X+C*X*X$
9	0.1216D+02	-0.2276D-02	0.0000D+00	0.0000	0.0000	$Y=A*X+B*X*X$
10	0.3201D+02	0.8281D+00	0.0000D+00	0.9943	0.9939	$Y=A*X^B$
11	0.1838D+04	0.1002D+01	0.0000D+00	0.9775	0.9759	$Y=A*B^X$
12	0.9837D+04	0.0000D+00	0.0000D+00	0.9108	0.9044	$Y=B^(1/X)$
13	0.2066D+04	0.2789D-03	0.0000D+00	0.9684	0.9662	$Y=A*X^(B*X)$
14	0.1168D+05	-0.5641D+02	0.0000D+00	0.9352	0.9306	$Y=A*X^(B/X)$
15	0.1838D+04	0.1996D-02	0.0000D+00	0.9775	0.9759	$Y=A*e^(B*X)$
16	0.9837D+04	-0.2612D+03	0.0000D+00	0.9108	0.9044	$Y=A*e^(B/X)$
17	-0.1803D+05	0.3849D+04	0.0000D+00	0.9393	0.9350	$Y=A+B*\ln X$
18	0.1436D-02	-0.1993D-03	0.0000D+00	0.9873	0.9864	$Y=1/(A+B*\ln X)$
19	0.1158D+03	0.1001D+01	0.5630D+00	0.9993	0.9992	$Y=A*B^X*X^C$
21	0.9437D+04	0.1076D+04	-0.5924D+06	0.9990	0.9989	$Y=A*e^((X-B)/2)$
22	0.1103D+04	0.2734D+01	0.7676D+01	0.9996	0.9995	$Y=A*e^((\ln X-B)^2/C)$
24	0.7149D+04	0.1515D+04	0.5630D+00	0.9993	0.9992	$Y=A*(X/B)^C*e^(x/b)$
25	0.8674D-09	-0.7503D+03	0.1266D-03	0.9916	0.9904	$Y=1/(A*(X+B)^2+C)$

BASED ON THE VALUE OF RC()--BEST FITTING CURVE WAS NUMBER 8

WB #1 before re testing 450#550 loads

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006153

9608011000	165300	162700	0	157300	165000	45100	165900	0	U1HR	TOTL=	430.65	TONS
9608011100	163700	161000	0	154200	163500	158900	164300	0	U1HR	TOTL=	482.8	TONS
9608011200	161800	159200	0	155600	161600	157100	162500	0	U1HR	TOTL=	478.9	TONS
9608011300	164000	161400	0	154600	163800	159400	164700	0	U1HR	TOTL=	483.95	TONS
9608011400	164100	162200	0	151400	164600	160100	165500	0	U1HR	TOTL=	483.95	TONS
9608011500	163400	160700	0	157600	163100	158600	164000	0	U1HR	TOTL=	483.7	TONS
9608011600	162700	160100	0	157600	162500	158100	163400	0	U1HR	TOTL=	482.2	TONS
9608011700	157400	154800	0	165300	157400	152900	158100	0	U1HR	TOTL=	472.95	TONS
9608011800	156700	154100	0	166600	156500	152100	157400	0	U1HR	TOTL=	471.7	TONS
9608011900	156900	154300	0	167500	156800	152300	157500	0	U1HR	TOTL=	472.65	TONS
9608012000	157500	154900	0	166900	157400	152900	158300	0	U1HR	TOTL=	473.95	TONS
9608012100	157700	155100	0	169200	157600	153100	158300	0	U1HR	TOTL=	475.5	TONS
9608012200	160400	157800	0	161000	160100	155700	161100	0	U1HR	TOTL=	478.05	TONS
9608012300	162900	160100	0	164500	162600	158100	163500	0	U1HR	TOTL=	485.85	TONS
9608020000	160100	157500	0	166600	159800	155400	160700	0	U1HR	TOTL=	480.05	TONS
9608020100	148900	146300	0	167000	148800	144400	149700	0	U1HR	TOTL=	452.55	TONS
9608020200	140400	138000	0	167100	140400	136100	141300	0	U1HR	TOTL=	431.65	TONS
9608020300	131300	128900	0	161300	131400	127000	132200	0	U1HR	TOTL=	406.05	TONS
9608020400	117600	115500	0	125000	117900	113700	101800	0	U1HR	TOTL=	345.75	TONS
9608020500	111600	109500	0	108500	112100	107800	112900	0	U1HR	TOTL=	331.2	TONS
9608020600	126200	123900	0	128900	126400	122100	127200	0	U1HR	TOTL=	377.35	TONS
9608020700	149500	147000	0	146100	149300	144900	150200	0	U1HR	TOTL=	443.5	TONS
9608020800	151000	148400	0	154000	150900	146400	151700	0	U1HR	TOTL=	451.2	TONS
9608020900	151500	148900	0	152800	151300	146900	152200	0	U1HR	TOTL=	451.8	TONS
9608021000	149200	146700	0	151900	149100	144600	150000	0	U1HR	TOTL=	445.75	TONS
9608021100	152300	149700	0	150100	152100	147700	152900	0	U1HR	TOTL=	452.4	TONS 9048
9608021200	152900	150300	0	151000	152800	148400	153600	0	U1HR	TOTL=	454.5	TONS 9090

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9607310000, 0, 32800, 105300, 100, 80600, 78500, 700, 0, U1HRLY TOTL= 149 TONS
9607310100, 0, 30000, 80300, 0, 74700, 0, 0, 0, U1HRLY TOTL= 92.5 TONS
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9607310700, 0, 143200, 136600, 0, 145600, 0, 145300, 0, U1HRLY TOTL= 285.35 TONS
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9607310900, 0, 141800, 135300, 0, 144300, 0, 144000, 0, U1HRLY TOTL= 282.7 TONS 5684

9608021400, 164700, 160200, 165600, 0, U1HRLY TOTL= 483.25 TONS
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9608021500, 166100, 163500, 0, 150300, 165900, 161300, 166700, 0, U1HRLY TOTL= 486.9 TONS
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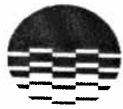
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 9607311300, 167400, 164800, 158200, 0, 167200, 162600, 157700, 0, U1HRLY TOTL= 488.95 TONS
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 9608010300, 114900, 0, 106300, 0, 115200, 0, 116100, 0, U1HRLY TOTL= 226.25 TONS 45250
 9608010400, 114100, 0, 105500, 0, 114600, 0, 115400, 0, U1HRLY TOTL= 224.8 TONS 4496.

9608010500, 139000, 26600, 63100, 88800, 139000, 0, 139900, 0, U1HRLY TOTL= 298.2 T
 9608010600, 159800, 157100, 0, 158500, 159500, 0, 160400, 0, U1HRLY TOTL= 397.65 TO
 9608010700, 159700, 157000, 0, 158600, 159400, 0, 160300, 0, U1HRLY TOTL= 397.5 TON
 9608010800, 158100, 155600, 0, 161900, 158000, 0, 158900, 0, U1HRLY TOTL= 396.25 TO 7925
 9608010900, 159200, 156500, 0, 158600, 158800, 0, 159800, 0, U1HRLY TOTL= 396.45 TO 7929

Confidential Business Information

WB_00006156



ENTERGY

**Inter-Office
Correspondence**

TO: **Jim Campbell** **T-EP-16**
 Mike Bakewell **T-EP-16**
 Lynn Sanders **A-WB**
 William Phillips **A-SOC**
 Henry Thompson **A-TCBY-23G**
 Al Ralston **A-SOC**

FROM: **Roger Lawson** **Phone 8-764-7329**
 Pat Klepper **Phone 8-762-4529**

DATE: **8/20/96**

SUBJECT: **1996 White Bluff Plant - Heat Rate Test Results**

A series of heat rate tests were performed on both White Bluff Units starting July 30 and ending August 13. Co-owners were notified prior to the testing and representatives from Arkansas Electric Cooperative were present to observe the testing. Testing was performed in an unbiased manner.

Each unit was tested from 160 net MW through full load. Unit One's heat rate improved throughout the load range when compared to last year. Unit Two's heat rate improved at all loads below 750 net MW. Both high pressure heater trains on Unit Two were isolated on this and last years' tests. The hot and cold end air heater baskets on Unit Two were replaced last Fall.

The coefficients for the 1996 heat rate curves are;

Term	Unit One	Unit Two
X^2	0.002435	0.003001
X^1	7.2870	6.9714
X^0	1040.431	1117.698

We recommend that these results be implemented for dispatch and co-owner billing.

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006157

The complete results are presented as charts on an the EXCEL spreadsheet
"WBHR1996.XLS" which was sent via. cc:mail along with this memo.

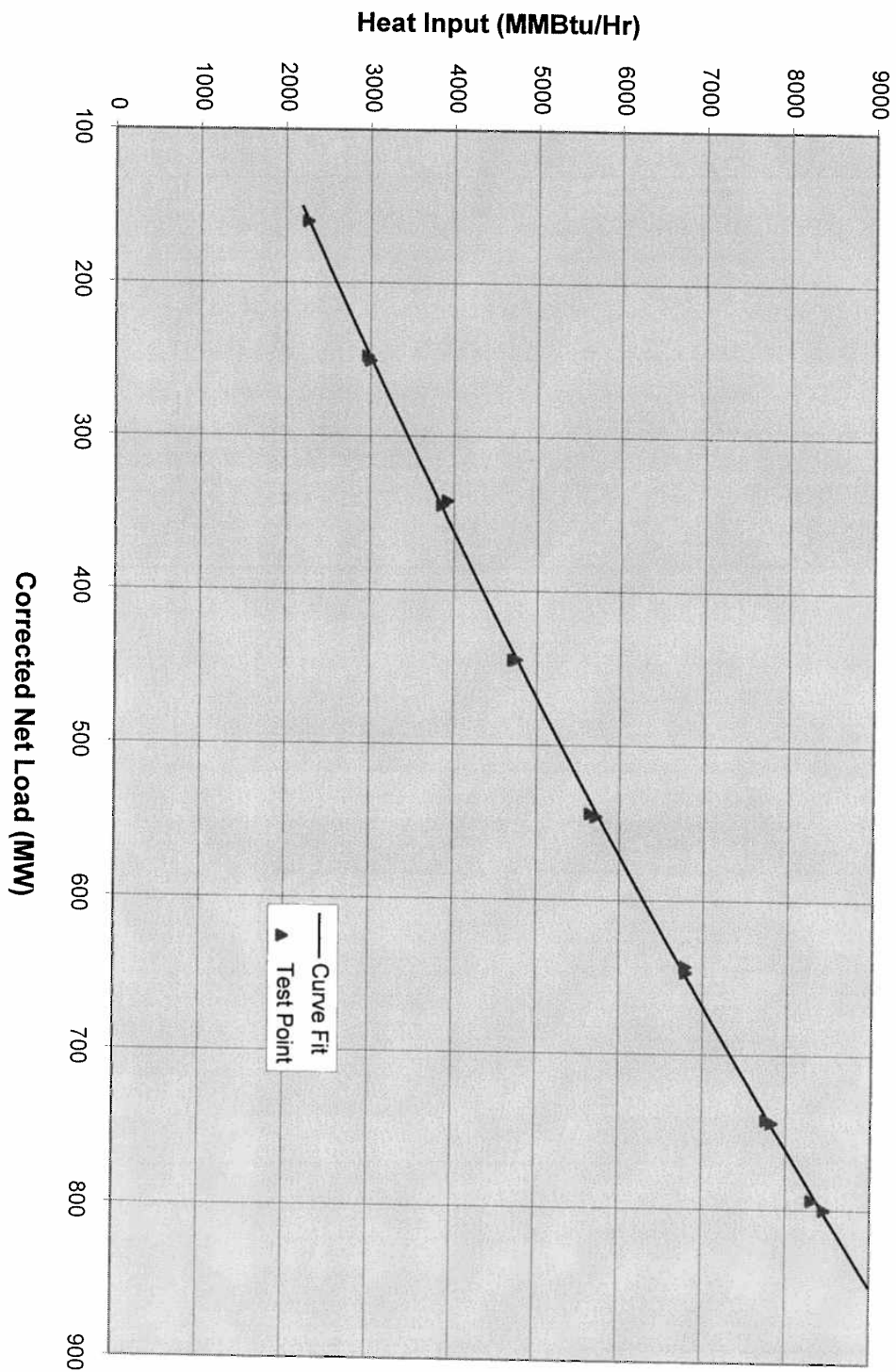
cc: George Eubanks A-WB-SC
David Harris A.E.C.C.

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

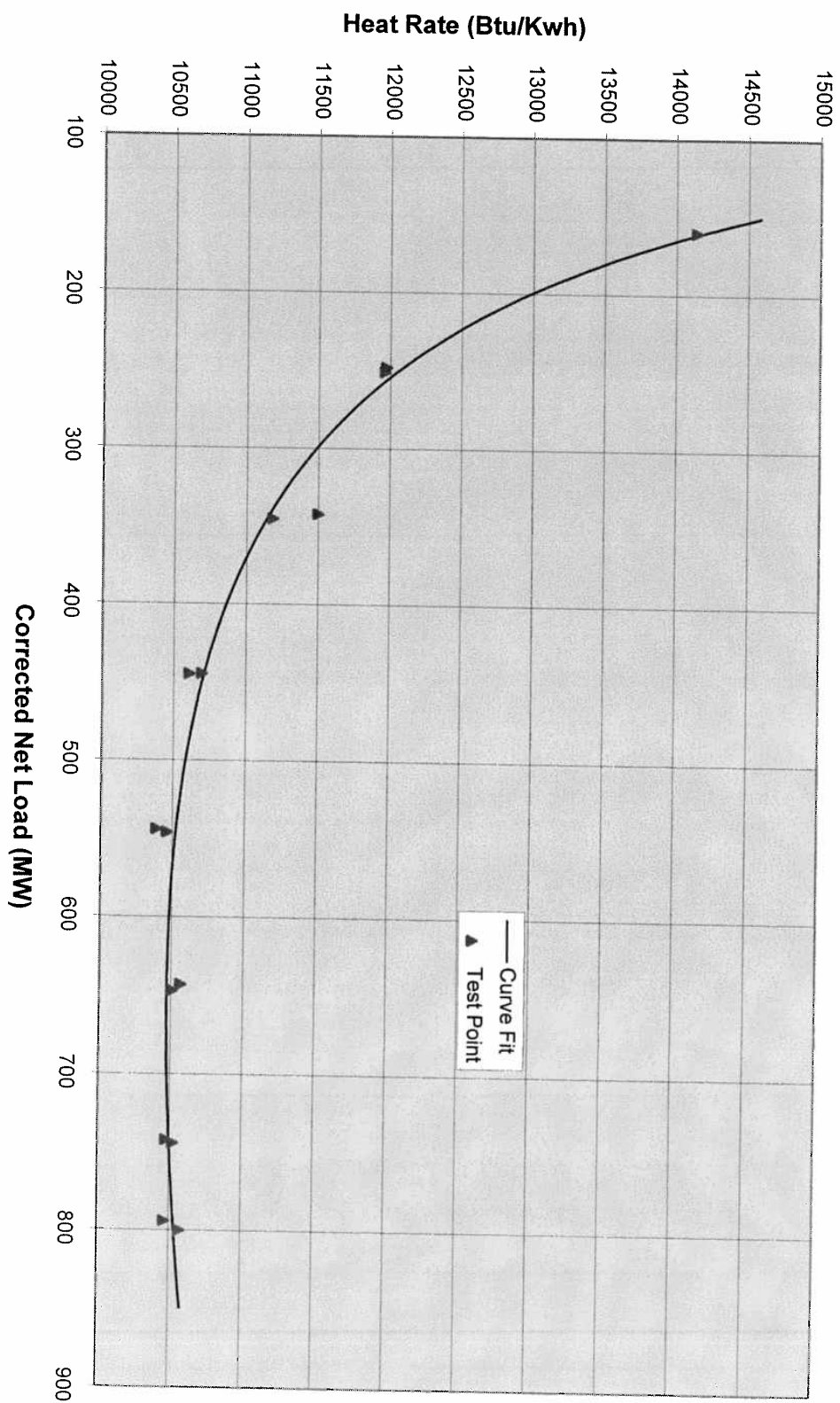
WB_00006158

1996 White Bluff Unit 1 Heat Rate



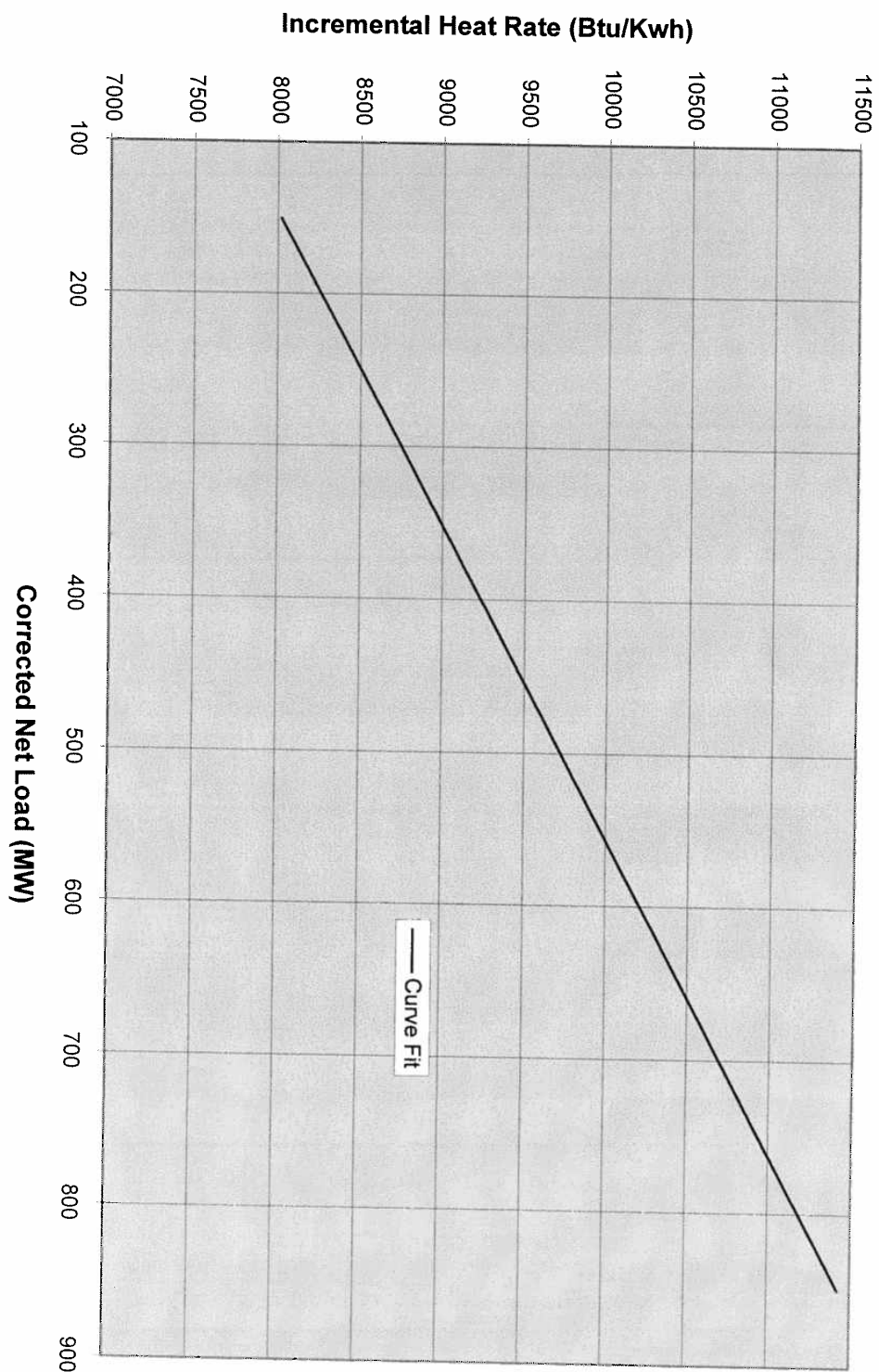
Claim Withdrawn. Contains No CBI. 06/29/2016_YD

1996 White Bluff Unit 1 Heat Rate



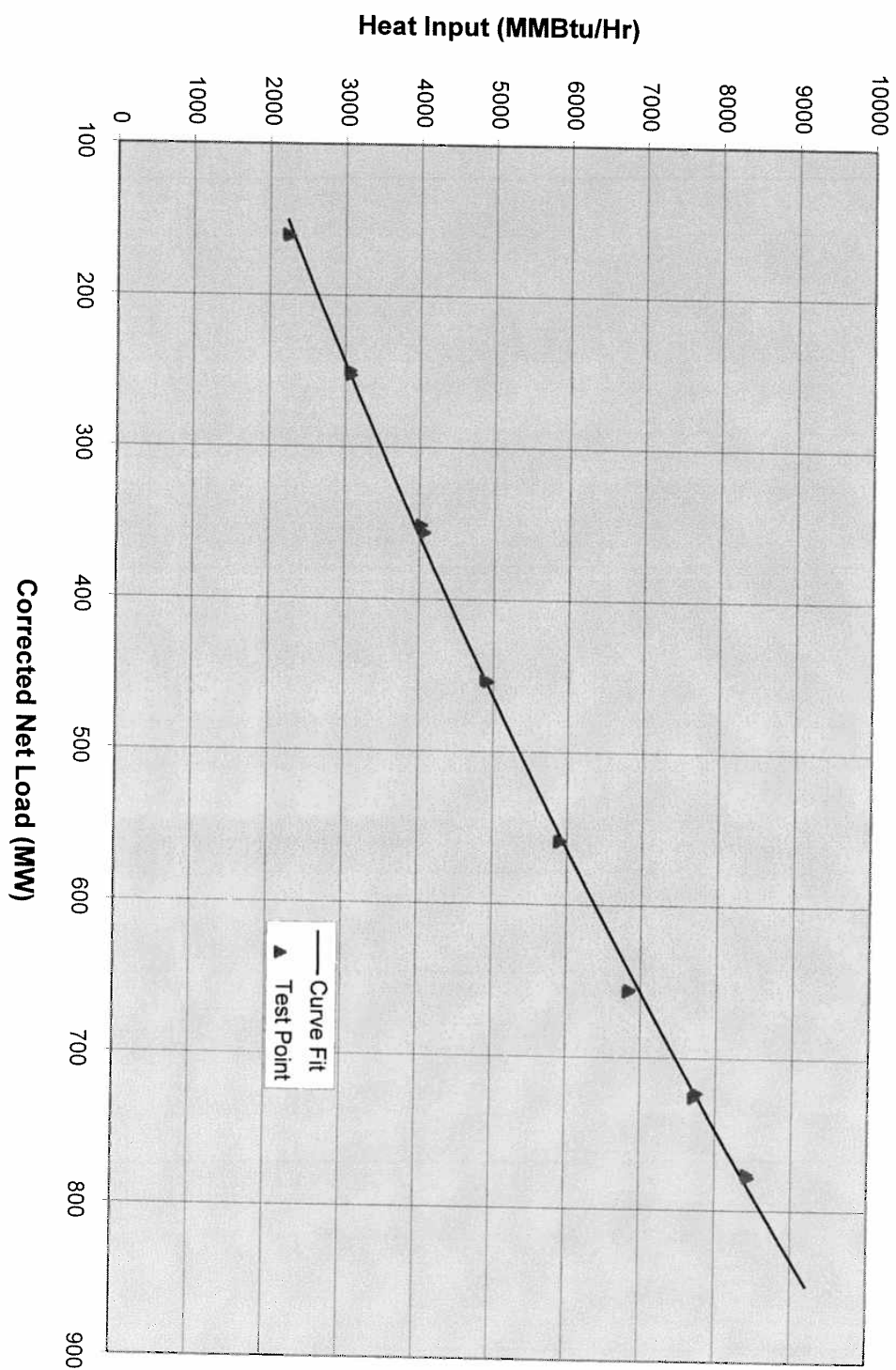
Claim Withdrawn. Contains No CBI. 06/29/2016_YD

1996 White Bluff Unit 1 Heat Rate



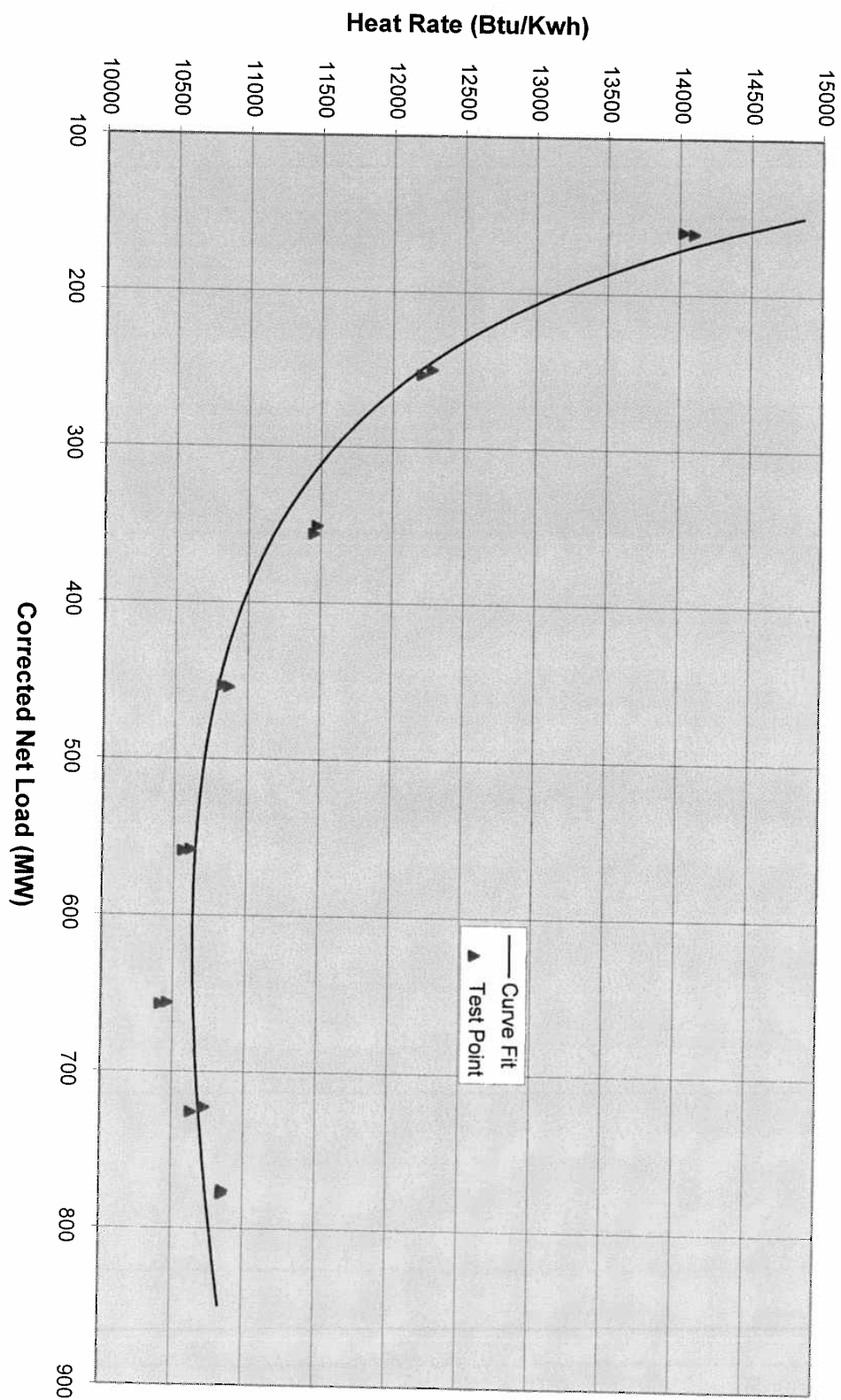
Claim Withdrawn. Contains No CBI. 06/29/2016_YD

1996 White Bluff Unit 2 Heat Rate



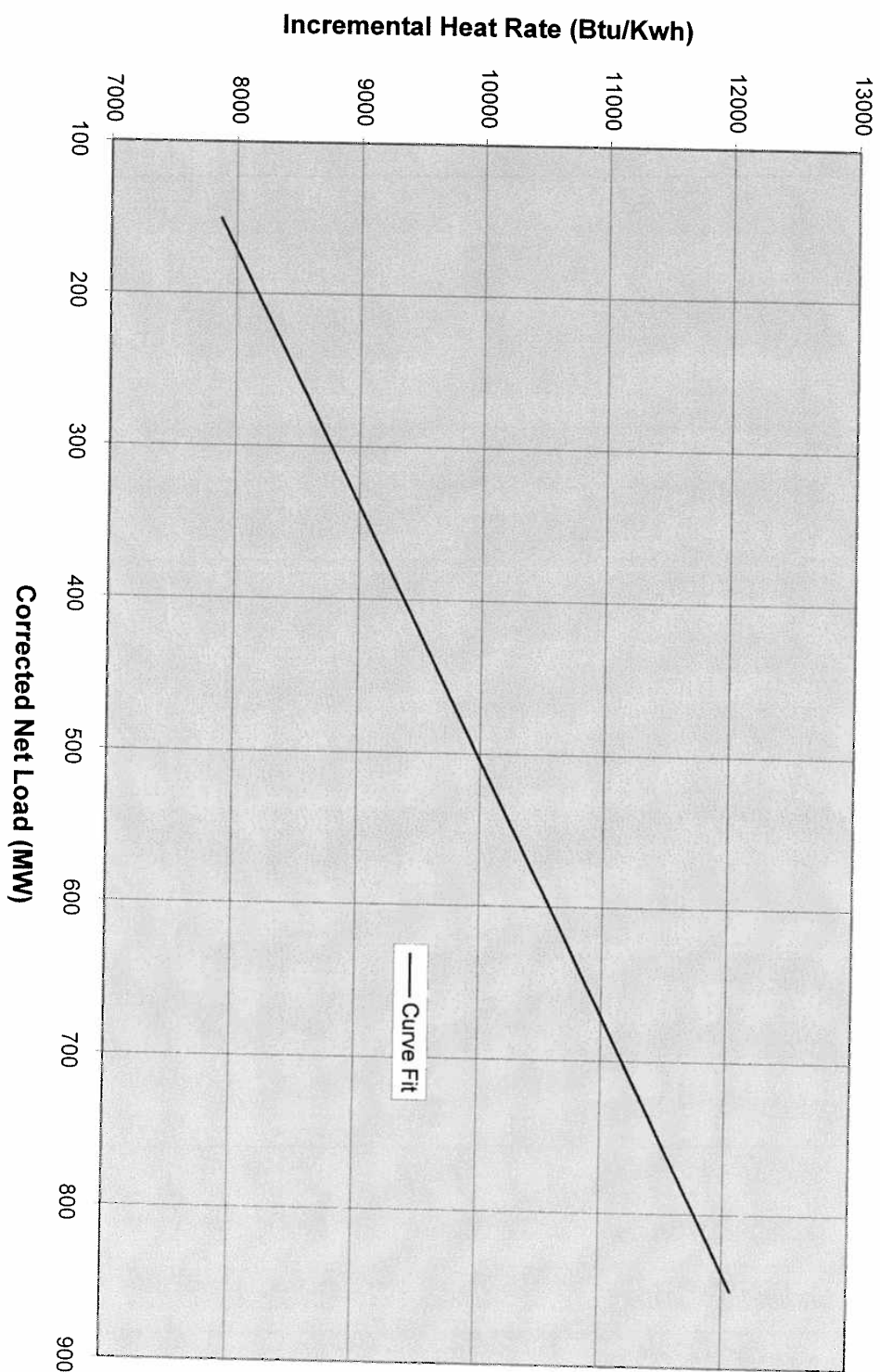
Claim Withdrawn. Contains No CBI. 06/29/2016_YD

1996 White Bluff Unit 2 Heat Rate



Claim Withdrawn. Contains No CBI. 06/29/2016_YD

1996 White Bluff Unit 2 Heat Rate



Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006164

COAL HEAT RATE TEST DATA

Plant: White Bluff

Unit: 2

Data Needed For Calculations										
Date	8/5/96	8/5/96	8/6/96	8/6/96	8/7/96	8/7/96	8/7/96	8/7/96	8/5/96	8/5/96
File Name	2160A	2160B	2250A	2250B	2350A	2350B	2350B	2450A	2450A	2450B
Gross MW	186	187	280	278	384	380	380	481	481	482
Aux MW	23.5	23.9	24.6	24.7	25.3	25.0	25.0	26.3	26.3	26.1
Cond Back Press	1.81	1.80	2.14	2.11	2.44	2.40	2.40	2.20	2.20	2.29
Circ Water Out T	96.94	96.71	101.54	101.12	105.10	104.42	104.42	108.42	108.42	109.45
Circ Water In T	89.11	88.82	90.69	90.37	91.13	90.54	90.54	91.47	91.47	92.48
Wet Bulb T	74.39	74.16	73.70	73.66	73.72	72.60	72.60	74.00	74.00	75.33
Dry Bulb T	78.30	77.51	77.32	77.06	76.24	75.95	75.95	76.15	76.15	78.72
Coal Flow pph	256100	259400	356400	356100	485100	482100	482100	576300	576300	575100
Coal HHV Btu/lb	8780	8745	8651	8637	8398	8362	8362	8504	8504	8585
Oil Flow bph										
Oil HHV Btu/bbl										

Outputs										
Corr Gross MW	183.75	184.73	277.22	275.23	380.96	376.26	376.26	478.88	478.88	480.25
Corr Net MW	160.25	160.83	252.62	250.53	355.66	351.26	351.26	452.58	452.58	454.15
Test Net Ht Rate	13837.3	13908.4	12072.1	12142.3	11357.3	11355.8	11355.8	10778.2	10778.2	10829.6
Corr Net Ht Rate	14031.6	14104.4	12205.1	12276.6	11454.3	11476.8	11476.8	10828.6	10828.6	10871.4
Heat In MMBtu	2248.6	2268.5	3053.2	3075.6	4073.9	4031.3	4031.3	4900.9	4900.9	4937.2
Test Net MW	162.5	163.1	255.4	253.3	358.7	355.0	355.0	454.7	454.7	455.9

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006165

COAL HEAT RATE TEST DATA

Plant: White Bluff

Unit: 2

Data Needed For Calculations										
Date	8/6/96	8/6/96	8/7/96	8/7/96	8/8/96	8/8/96	8/8/96	8/8/96	8/8/96	8/8/96
File Name	2550A	2550B	2650A	2650B	2720A	2720B	2780A	2780B		
Gross MW	588	588	690	688	700	757	812	815		
Aux MW	28.3	28.2	30.3	30.2	33.9	33.8	36.2	36.2		
Cond Back Press	2.45Δ	2.54Δ	2.61	2.66	3.42	3.42	3.62 Δ	3.49 Δ		
Circ Water Out T	112.79	113.43	114.84	115.44	122.67	122.53	124.80	123.97		
Circ Water In T	121.60	123.20	121.38	121.02	126.34	126.27	126.77	125.99		
Wet Bulb T	74.25	75.66	72.35	73.45	77.62	78.33	77.90	77.35		
Dry Bulb T	76.49	78.86	74.22	76.33	87.12	90.45	91.54	86.70		
Coal Flow pph	702000	692700	806700	806800	895800	896200	909600	975000		
Coal HHV Btu/lb	8434	8522	8483	8503	8667	8743	8689	8662		
Oil Flow bph										
Oil HHV Btu/bbl										
	Large spread in A & B BPs									

Outputs										
Corr Gross MW	585.96	586.90	687.44	685.81	760.00	757.00	812.00	814.24		
Corr Net MW	557.66	558.70	657.14	655.61	726.10	723.20	775.80	778.04		
Test Net Ht Rate	10578.3	10545.2	10373.3	10429.0	10634.6	10727.9	10859.6	10844.2		
Corr Net Ht Rate	10617.0	10565.9	10413.7	10463.9	10634.6	10727.9	10859.6	10834.8		
Heat In MMBtu	5920.7	5903.2	6843.2	6860.2	7721.8	7758.4	8424.9	8445.5		
Test Net MW	559.7	559.8	659.7	657.8	726.1	723.2	775.8	778.8		

EQ#	COEF A	COEF B	COEF C	R^2	R^2 C	EQUATION
1	0.5766D+03	0.9818D+01	0.0000D+00	0.9962	0.9959	$Y=A+B*X$
2	0.0000D+00	0.1081D+02	0.0000D+00	0.0000	0.0000	$Y=B*X$
3	0.4548D-03	-.4722D-06	0.0000D+00	0.8980	0.8907	$Y=1/(A+B*X)$
4	-.1257D+03	0.1062D+02	0.1164D+06	0.9976	0.9972	$Y=A+B*X+C/X$
5	0.8485D+04	-.1161D+07	0.0000D+00	0.7949	0.7802	$Y=A+B/X$
6	0.4865D-04	0.6556D-01	0.0000D+00	0.9883	0.9875	$Y=X/(A*X+B)$
7	0.1227D+05	-.3967D+07	0.3822D+09	0.9629	0.9572	$Y=A+B/X+C/X*X$
8	0.1118D+04	0.6971D+01	0.3001D-02	0.9988	0.9986	$Y=A+B*X+C*X*X$
9	0.1207D+02	-.1980D-02	0.0000D+00	0.0000	0.0000	$Y=A*X+B*X*X$
10	0.3185D+02	0.8302D+00	0.0000D+00	0.9940	0.9936	$Y=A*X^B$
11	0.1821D+04	0.1002D+01	0.0000D+00	0.9806	0.9792	$Y=A*B^X$
12	0.9904D+04	0.0000D+00	0.0000D+00	0.9166	0.9107	$Y=B^(1/X)$
13	0.2048D+04	0.2856D-03	0.0000D+00	0.9725	0.9706	$Y=A*X^(B*X)$
14	0.1175D+05	-.5629D+02	0.0000D+00	0.9392	0.9348	$Y=A*X^(B/X)$
15	0.1821D+04	0.2037D-02	0.0000D+00	0.9806	0.9792	$Y=A*e^(B*X)$
16	0.9904D+04	-.2606D+03	0.0000D+00	0.9166	0.9107	$Y=A*e^(B/X)$
17	-.1801D+05	0.3850D+04	0.0000D+00	0.9347	0.9301	$Y=A+B*\ln X$
18	0.1441D-02	-.2004D-03	0.0000D+00	0.9867	0.9858	$Y=1/(A+B*\ln X)$
19	0.1276D+03	0.1001D+01	0.5433D+00	0.9995	0.9995	$Y=A*B^X*X^C$
20	0.5319D+01	0.2380D+38	0.1087D+01	0.9988	0.9987	$Y=A*B^(1/X)*X^C$
21	0.9855D+04	0.1114D+04	-.6276D+06	0.9973	0.9968	$Y=A*e^((X-B)/2)$
22	0.1130D+04	0.2795D+01	0.7480D+01	0.9992	0.9991	$Y=A*e^((\ln X-B)^2/C)$
24	0.6484D+04	0.1379D+04	0.5433D+00	0.9995	0.9995	$Y=A*(X/B)^C*e^(x/b)$
25	0.8953D-09	-.7380D+03	0.1286D-03	0.9876	0.9857	$Y=1/(A*(X+B)^2+C)$

BASED ON THE VALUE OF RC()--BEST FITTING CURVE WAS NUMBER 19

WB#2

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006167

COAL HEAT RATE TEST DATA

Plant: WB

Unit: 1

Data Needed For Calculations										
Date	8-11-97	8-11-97	8-12-97	8-12-97	8-12-97	8-13-97	8-13-97	8-13-97	8-11-97	8-11-97
File Name • DAT	1160A97	1160B97	1250A97	1250A97	1250B97	1350A97	1350B97	1350B97	1450A97	1450B97
Gross MW	186	182	279	279	278	381	382	382	477	487
Aux MW	22.3	22.2	20.5	20.5	20.5	25.3	25.5	25.5	25.0	28.3
Cond Back Press	2.13	2.09	2.44	2.44	2.44	2.69	2.67	2.67	3.59	2.99
Circ Water Out T	103.45	101.04	105.95	105.95	106.59	110.28	109.99	109.99	117.79	110.18
Circ Water In T	89.54	87.06	87.38	87.38	88.81	96.83	96.51	96.51	90.50	92.19
Wet Bulb T	72.64	74.30	74.70	74.70	74.51	76.59	76.35	76.35	75.19	76.65
Dry Bulb T	73.87	75.20	76.80	76.80	77.14	79.81	79.86	79.86	77.32	81.38
Coal Flow pph	251375	249337	347700	347700	347700	455600	452900	452900	553800	553300
Coal HHV Btu/lb	8725	8792	9024	9024	8848	8852	8727	8727	8800	8711
Oil Flow bph										
Oil HHV Btu/bbl										

1 circ H₂O
2 circ H₂O

Outputs										
Corr Gross MW	189.93	179.50	276.79	276.79	275.77	380.52	380.33	380.33	473.82	486.45
Corr Net MW	160.63	157.30	256.29	256.29	255.27	355.22	354.83	354.83	448.82	458.15
Test Net Ht Rate	13398	13718	12138	12138	11947	11338	11087	11087	10856	10508
Corr Net Ht Rate	13654	13936	12243	12243	12052	11353	11139	11139	10933	10520
Heat In MMBtu	2193.247	2102.171	3137.645	3137.645	3176.450	4032.971	3952.458	3952.458	4906.668	4871.796
Test Net MW	163.7	159.8	256.2	256.2	255.1	353.4	354.1	354.1	452.0	458.7

44. In = 1040.565 + 1.298 (NMW) + 4.44 2202 (NMW)² (w/o 450A)

COAL HEAT RATE TEST DATA

Plant: WB1

Unit: 1

Date	Data Needed For Calculations							
	8-12-97	8-12-97	8-12-97	8-12-97	8-12-97	8-12-97	8-12-97	8-12-97
File Name • DAI	1550A97	1550B97	1650A97	1650B97	1750A97	1750B97	1750C97	1750D97
Gross MW	585	585	683	683	785	785	870	869
Aux MW	30.6	30.8	33.5	33.1	36.2	36.2	40.1	40.7
Cond Back Press	3.24	3.37	3.96	3.96	4.76	4.76	4.75	4.88
Circ Water Out T	112.76	113.86	121.64	121.70	124.92	123.56	124.16	125.88
Circ Water In T	93.51	95.62	100.33	100.27	101.27	100.81	94.75	97.02
Wet Bulb T	75.17	76.29	76.16	76.69	79.73	79.63	77.16	78.47
Dry Bulb T	77.46	78.75	79.87	81.34	93.28	97.78	84.88	87.07
Coal Flow pph	648000	653300	772600	778100	876800	878000	986300	982500
Coal HHV Btu/lb	8720	8761	8660	8591	8880	8803	8772	8743
Oil Flow bph								
Oil HHV Btu/bbl								

Outputs								
Corr Gross MW	582.21	583.06	680.80	684.20	787.25	784.17	868.91	869
Corr Net MW	551.61	552.26	647.36	654.10	751.05	747.17	828.81	828.3
Test Net Ht Rate	10192	10328	10301	10207	10398	10375	10425	10371
Corr Net Ht Rate	10247	10364	10336	10220	10367	10344	10439	10371
Heat In MMBtu	5650.560	5923.561	6690.716	6684.657	7785.984	7729.034	8651.824	8589.998
Test Net MW	554.4	554.2	649.5	654.9	748.8	745.0	829.9	828.3

$$HH_{in} = 998.637 + 1.583(NH_{in}) + 4.41903(NH_{in})^2 \quad (w/450A)$$



ENTERGY

**Inter-Office
Correspondence**

TO: **Tom Schnatz** **T-EP-17B**
 Mike Bakewell **T-EP-17B**
 Lynn Sanders **A-WB**
 George Eubanks **A-WB-SC**
 Al Ralston **T-PKWD-3F**
 Tony James **T-PKWD-3F**
 Henry Thompson **T-PKWD-3H**

FROM: **Roger Lawson** **Phone 8-764-7329**
 Pat Klepper **Phone 8-762-4529**

DATE: **8/28/97**

SUBJECT: **1997 White Bluff Plant - Heat Rate Test Results**

A series of heat rate tests were performed on both White Bluff Units starting July 7 and ending August 14. Co-owners were notified prior to the testing and representatives from Arkansas Electric Cooperative were present to observe the testing. Testing was performed in an unbiased manner.

Each unit was tested from 160 net MW through full load. Unit One's heat rate improved throughout the load range when compared to last year. Unit Two's heat rate improved at all loads above 550 net MW. Last year both high pressure heater trains on Unit Two were isolated during the tests, this year they were not isolated.

This years test were performed with one circulating water pump operation at minimum load on both units. Unit 1 was also tested with one pump operation at 250 MW. The first hour test at 450 MW on Unit 1 was performed with one circ water pump operation and the second hour test with two pump operation. Operating the second pump increased the auxiliary usage by 3.3 MW, but this was more than offset by the 0.6 inch decrease in back pressure at the ambient conditions during the test. The resulting decrease in heat rate with both pumps operating was 400 Btu/Kwh. The difference is shown on the attached charts.

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

nformation

WB_00006170

The heat input at each of the corrected test loads is shown in the following table.

<u>Corrected Test Load (Net MW)</u>		<u>Heat Input (MMBTU/Hr)</u>	
<u>Unit 1</u>	<u>Unit 2</u>	<u>Unit 1</u>	<u>Unit 2</u>
157.30	158.58	2192.171	2261.267
160.63		2193.247	
255.27	247.17	3076.450	3033.339
256.29	251.16	3137.645	3050.726
354.83	346.49	3952.458	3970.887
355.22	347.22	4032.971	4097.542
	450.00		4925.064
458.15	454.66	4819.796	4910.500
551.61	547.42	5650.560	5888.830
552.26	552.36	5723.561	5861.807
647.30	647.54	6690.716	6743.269
654.10	649.27	6684.657	6875.606
747.17	753.20	7729.034	7849.489
751.05	756.10	7785.984	7921.463
828.30	853.31	8589.998	8915.273
828.81	855.13	8651.824	8941.020

The coefficients for the 1997 heat rate curves are:

<u>Term</u>	<u>Unit 1</u>	<u>Unit 2</u>
X^2	0.002202	0.001217
X^1	7.298	8.3394
X^0	1040.565	907.130

We recommend that these results be implemented for economic dispatch and co-owner billing.

The complete results are presented as charts on an the EXCEL spreadsheet "WBHR1997.XLS" which is a cc:mail attachment along with this memo.

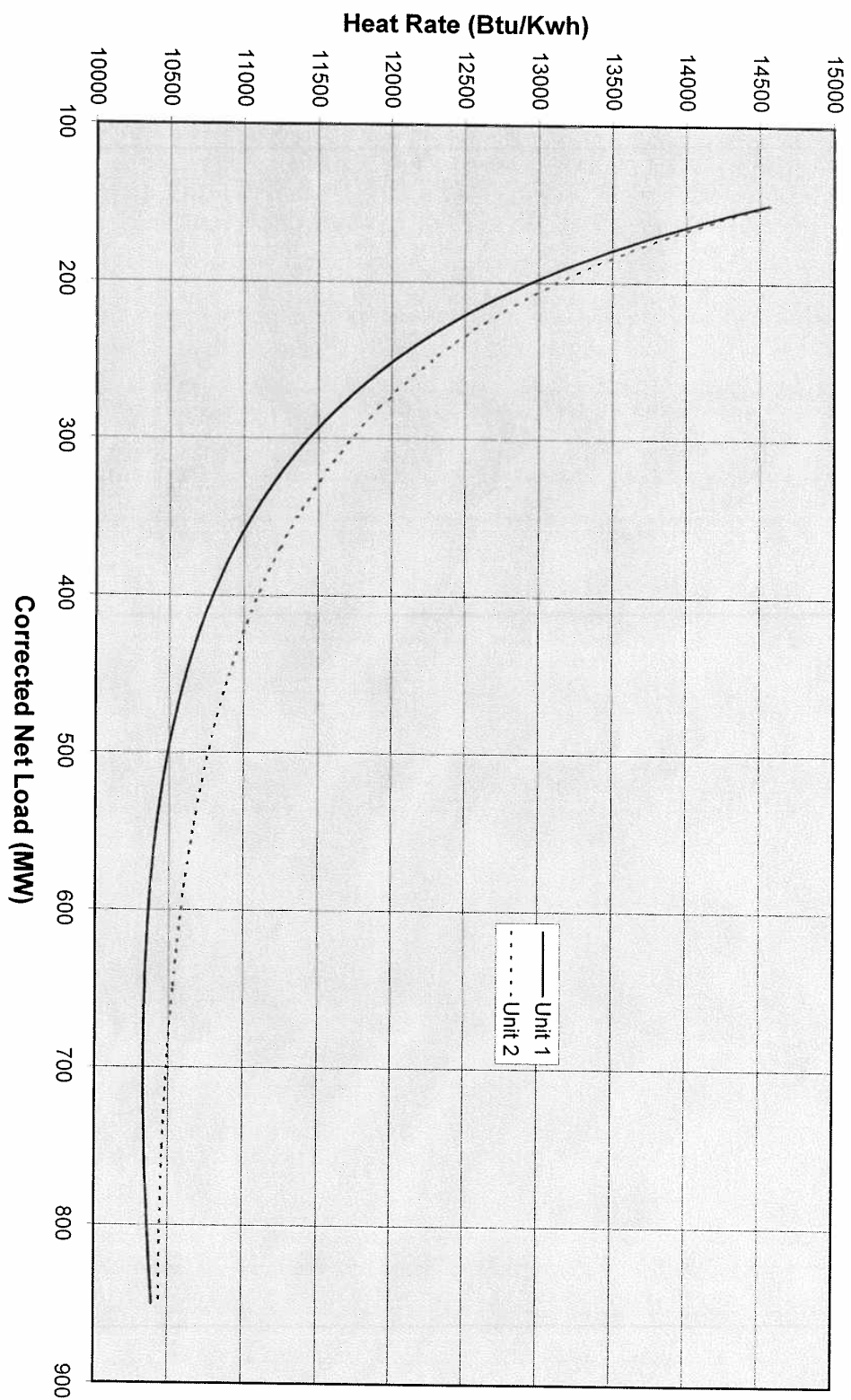
cc: David Harris A.E.C.C.

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

nformation

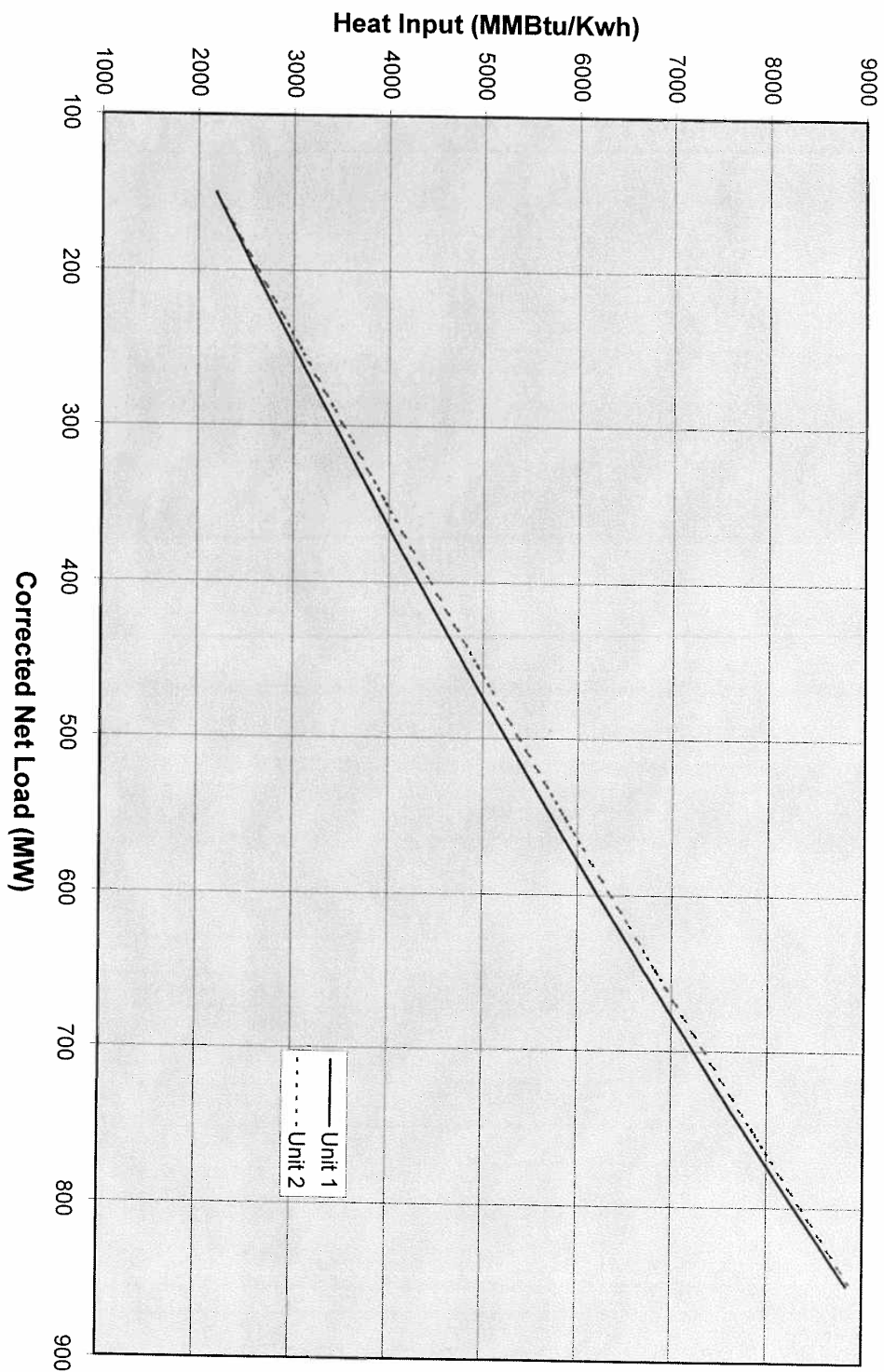
WB_00006171

1997 White Bluff Heat Rate



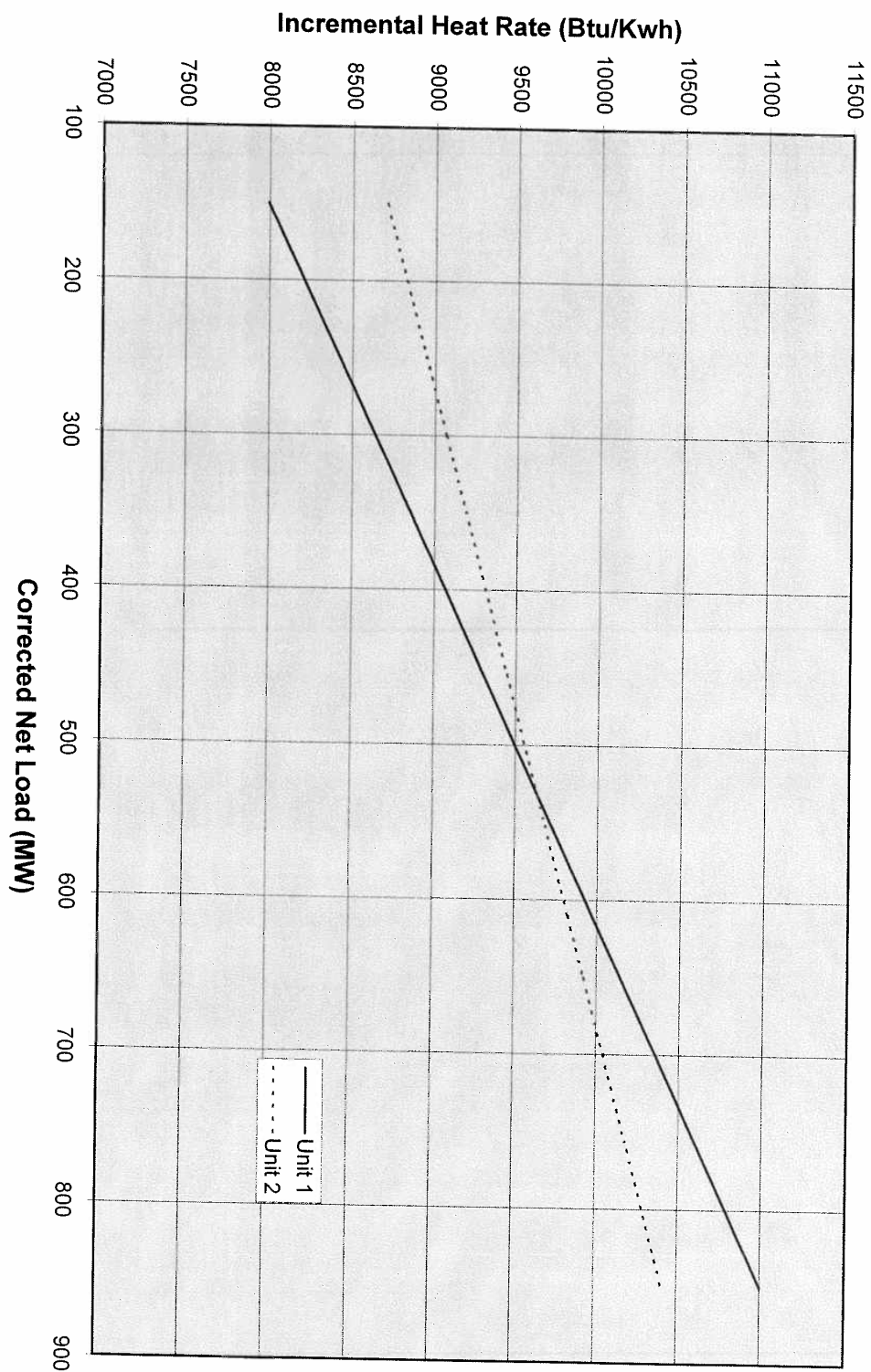
Claim Withdrawn. Contains No CBI. 06/29/2016_YD

1997 White Bluff Heat Rate



Claim Withdrawn. Contains No CBI. 06/29/2016_YD

1997 White Bluff Heat Rate



Claim Withdrawn. Contains No CBI. 06/29/2016_YD

COAL HEAT RATE TEST DATA

Plant: WB

Unit: 2

122.50 132.08 155.94 162.81 126.59 120.99 134.79 135.50

Data Needed For Calculations									
Date	7/9/97	7/9/97	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97
File Name .DAT	2650A97	2650B97	2250A97	2250B97	2750A97	2750B97	2850A97	2850B97	2850C97
Gross MW	685	682	276	280	791	792	890	891	891
Aux MW	30.1	29.9	24	24	33.1	33.0	37.8	38.0	38.0
Cond Back Press	3.67	3.65	2.11	2.10	4.13	4.17	5.14	5.23	5.23
Circ Water Out T	116.82	116.60	100.12	100.02	120.30	120.85	128.06	128.88	128.88
Circ Water In T	94.40	92.24	89.58	89.46	94.21	94.84	98.50	99.16	99.16
Wet Bulb T	71.91	72.98	70.97	71.18	72.52	74.46	78.84	79.84	79.84
Dry Bulb T	73.24	75.29	72.52	72.35	74.51	78.48	89.26	90.16	90.16
Coal Flow pph	791300	780200	341400	345300	897700	907800	1047500	1048800	1048800
Coal HHV Btu/lb	8689	8643	8885	8835	8744	8726	8511	8525	8525
Oil Flow bph									
Oil HHV Btu/bbl									

Outputs									
Corr Gross MW	679.37	677.44	271.17	275.16	786.3	789.1	891.11	893.13	893.13
Corr Net MW	649.27	647.54	247.17	251.16	753.2	756.1	853.31	855.13	855.13
Test Net Ht Rate	10499	10341	12037	11917	10357	10437	10462	10482	10482
Corr Net Ht Rate	10590	10414	12272	12147	10422	10477	10447	10456	10456
Heat In MMBtu	6875.6057	6743.2686	3033.339	3050.7255	7849.4888	7921.4628	8915.2725	8941.02	8941.02
Test Net MW	654.9	652.1	252	256	757.9	759.0	852.2	853.0	853.0

$$H.H. In = 912.708 + 8.392(NMW) + .001138(NMW)^2$$

w/o Test 2850A = doubling the 1600 3500 tests in curve 21

$$H.H. In = 907.13016 + 8.3394(NMW) + .0012167(NMW)^2$$

$Stk. Error = 47.739$
 $Corr. Coeff. = 0.99977$

COAL HEAT RATE TEST DATA

Plant: White Bluff
Unit: 1
 $Heat In = 993.81896 + 7.3926156 (MW)$
 $+ 0.002342624 (MW)^2$

Data Needed For Calculations										
Date	7-21-98	7-21-98	7-22-98	7-22-98	7-23-98	7-23-98	7-24-98	7-24-98	7-24-98	7-24-98
File Name	WB1450a.	WB1450b.	WB1525a.	WB1525b.	WB1600a.	WB1600b.	WB1680a.	WB1680b.	WB1680c.	WB1680d.
Gross MW	474	475	557	559	626	617	712	712	712	712
Aux MW	31.0	31.1	31.7	31.5	33.2	33.2	33.5	33.5	33.5	33.5
Cond Back Press	2.95	2.93	3.22	3.27	3.69	3.71	3.77	3.77	3.74	3.74
Circ Wtr Out T	110.46	110.37	112.91	113.17	116.44	114.94	118.21	118.21	118.09	118.09
Circ Water In T	96.04	95.86	94.75	95.17	96.35	96.33	94.63	94.63	94.26	94.26
Wet Bulb T	75.36	75.74	72.01	73.17	74.23	74.37	73.94	73.94	73.28	73.28
Dry Bulb T	78.13	78.78	73.99	75.73	75.52	76.12	75.00	75.00	74.02	74.02
Coal Flow pph	537400	537800	632800	636100	720200	714400	824000	824000	824000	824000
Coal HHV Btu/lb	8393	8486	8534	8449	8583	8590	8569	8569	8563	8563
Oil Flow bph										
Oil HHV Btu/bbl										
END	445	441	525	528	593	585	675	675	676	676

Outputs										
Corr Gross MW	471.25	473.2	551.34	554.13	622.06	613.03	708.29	707.31	707.31	707.31
Corr Net MW	440.25	442.1	519.64	522.63	588.86	579.83	672.79	671.51	671.51	671.51
Test Net Ht Rate	10566.1	10663.4	10280.4	10188.5	10427.6	10571.6	10462.7	10434.7	10434.7	10434.7
Corr Net Ht Rate	10632.0	10706.7	10392.3	10289.5	10497.4	10583.7	10520.3	10507.5	10507.5	10507.5
Heat In MMBtu	4680.77	4733.49	5400.31	5374.10	6181.47	6136.19	7077.99	7055.91	7055.91	7055.91
Test Net MW	443.0	443.4	525.3	527.5	592.8	583.8	676.5	676.2	676.2	676.2

614.03
 580.183
 10493.7
 10565.5
 584.8

COAL HEAT RATE TEST DATA

Plant: White Bluff

Unit: 1

Data Needed For Calculations									
Date	7-25-98	7-25-98	7-22-98	7-22-98	7-23-98	7-23-98	7-21-98	7-21-98	
File Name	WB1MINQ.d	WB1MINQ.d	WB1225a	WB1225b	WB1300a	WB1300b	WB1375a	WB1375b	
Gross MW	192	192	247	247	328326	328	396	399	
Aux MW	28.3	28.1	29.4	28.7	27.6	29.3	29.2	30.5	
Cond Back Press	2.02	2.00	2.21	2.22	2.57	2.55	2.86	2.86	
Circ Wtr Out T	96.71	96.17	101.26	101.29	104.91	104.60	108.32	108.29	
Circ Water In T	90.26	89.52	89.56	90.22	90.79	70.81	95.29	95.13	
Wet Bulb T	73.99	73.73	74.85	73.61	73.84	74.66	75.99	75.31	
Dry Bulb T	76.51	75.92	79.21	77.52	75.42	76.94	81.23	79.75	
Coal Flow pph	267000	266300	314000	314200	396100	398900	473600	475100	
Coal HHV Btu/lb	8430	8419	8618	8558	8520	8520	8519	8519	
Oil Flow bph									
Oil HHV Btu/bbl									
F _{net}	100	100	216	217	298	299	368	369	

Outputs									
Corr Gross MW	189.24	189.21	244.82	244.19	324.84	326.12	394.35	396.31	
Corr Net MW	160.94	161.11	215.42	215.49	297.24	296.82	365.15	365.81	
Test Net Ht Rate	13712.6	13678.9	12435.9	12377.6	11234.3	11378.1	10999.5	10983.4	
Corr Net Ht Rate	13985.6	13915.9	12561.9	12481.1	11353.7	11450.1	11049.2	11064.0	
Heat In MMBtu	2250.81	2241.97	2706.05	2688.92	3374.77	3398.62	4034.59	4047.37	
Test Net MW	163.7	163.9	217.6	218.3	300.4	298.7	366.8	368.5	

322.84
295.24
11309.6
11430.9

298.4

COAL HEAT RATE TEST DATA

Plant: White Bluff

Unit: 1

Data Needed For Calculations				
Date	7-24-98	7-24-98	7-24-98	7-24-98
File Name	WB17609.	WB17606.	WB1815a.	WB1855b.
Gross MW	796	796	855	852
Aux MW	35.7	35.6	39.0	39.5
Cond Back Press	4.17	4.13	4.60	4.71
Circ Wtr Out T	120.57	120.49	123.66	124.80
Circ Water In T	95.52	95.17	94.79	94.94
Wet Bulb T	73.56	73.61	77.73	79.13
Dry Bulb T	73.12	74.64	83.48	86.95
Coal Flow pph	93300	94480	102100	109900
Coal HHV Btu/lb	8408	8415	8586	8354
Oil Flow bph				
Oil HHV Btu/bbl				
FW	797	799	815	813

Outputs				
Corr Gross MW	796.22	792.22	855.0	853.02
Corr Net MW	752.52	753.62	816.0	813.52
Test Net Ht Rate	10363.2	10491.1	10500	10486.5
Corr Net Ht Rate	10429.0	10549.8	10500	10473.3
Heat In MMBtu	7848.02	7950.49	8567.97	8520.24
Test Net MW	757.3	757.4	816.0	812.5

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006179



ENTERGY

**Inter-Office
Correspondence**

TO: Etienne Senac
James Marbury
Tom Schnatz
George Eubanks
Al Ralston
Tim Gautreau
Henry Thompson
David Harris - AECC

FROM: Roger Lawson

DATE: October 13, 1998

SUBJECT: 1998 White Bluff Heat Rate Test Results

Heat rate tests were performed on both White Bluff Units during the months of July and August. Co-owners were notified prior to the testing and representatives from Arkansas Electric Cooperative Corporation were present to observe. Testing was performed as required by the Entergy Heat Rate Testing Procedure for Fossil Units.

Both units were tested from minimum to maximum loads. The Unit One heat rate is slightly improved below 350 MW and slightly worse above 350 MW compared to 1997. Unit Two is improved below 450 MW and worse above 450 MW compared to 1997.

The coefficients for the 1998 heat rate curves are:

Term	Unit 1	Unit 2
X^2	0.002343	0.001771
X^1	7.393	8.092
X^0	993.819	907.723

The measured heat input at each of the corrected test loads is shown in the following table.

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006180

Unit 1 Corrected Net Test Load (MW)	Unit 1 Heat Input (MMBtu/Hr)	Unit 2 Corrected Net Test Load (MW)	Unit 2 Heat Input (MMBtu/Hr)
160.94	2250.81	162.37	2235.64
161.11	2241.97	162.50	2276.15
215.42	2706.05	228.15	2853.21
215.49	2688.92	229.95	2838.88
296.82	3398.62	304.86	3516.07
297.24	3374.77	307.00	3617.44
365.15	4034.59	363.81	4121.70
365.81	4047.37	363.81	4121.70
440.25	4680.77	452.62	4969.72
442.10	4733.49	454.10	4946.59
519.64	5400.31	524.90	5564.15
522.63	5374.40	524.93	5571.39
579.83	6136.69	681.61	7261.24
588.86	6181.47	685.72	7327.80
671.51	7055.91	822.51	8721.82
672.79	7077.99	822.80	8801.52
752.52	7848.02		
753.62	7950.49		
813.52	8520.24		
816.00	8567.97		

The results have been reviewed and approved for implementation by James Marbury.

The complete test results are presented as charts in the EXCEL spreadsheet
“WBHR1998.XLS” which is provided as an attachment to this memo.

cc: Pat Klepper

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

Confidential Business Information

WB_00006181

COAL HEAT RATE TEST DATA

Plant: Unit 6 11/08

Unit: 2

Data Needed For Calculations										
Date	7-7-98	7-7-98	7-8-98	7-8-98	7-9-98	7-9-98	7-9-98	7-9-98	7-9-98	7-9-98
File Name	204520a	204520b	204520c	204520d	204520e	204520f	204520g	204520h	204520i	204520j
Gross MW	479	479	479	479	479	479	479	479	479	479
Aux MW	24.9	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8
Cond Back Press	3.22	3.29	3.39	3.40	3.41	3.42	3.43	3.44	3.45	3.46
Circ Water Out T	111.44	111.87	112.25	112.63	113.01	113.39	113.77	114.15	114.53	114.91
Circ Water In T	94.70	95.10	95.52	95.93	96.35	96.77	97.18	97.60	98.01	98.43
Wet Bulb T	78.12	79.22	80.12	81.02	81.92	82.82	83.72	84.62	85.52	86.42
Dry Bulb T	87.79	87.79	87.79	87.79	87.79	87.79	87.79	87.79	87.79	87.79
Coal Flow pph	552500	552500	552500	552500	552500	552500	552500	552500	552500	552500
Coal HHV Btu/lb	819	819	819	819	819	819	819	819	819	819
Oil Flow bph										
Oil HHV Btu/bbl										
EMO										

Outputs										
Corr Gross MW	479.0	477.62	551	550.72	711.91	716.02	858	857.91	857.91	857.91
Corr Net MW	474.1	472.62	524.9	524.93	651.61	655.72	822.8	822.8	822.8	822.8
Test Net Ht Rate	10803	10995	10600	10628	10653	10749	10697	10697	10697	10697
Corr Net Ht Rate	10803	10980	10600	10614	10653	10686	10697	10697	10697	10697
Heat In MMBtu	4746.57	4769.124	5564.151	5576.556	7201.242	7327.800	8801.519	8801.519	8801.519	8801.519
Test Net MW	454.1	453.0	524.9	524.2	679.7	681.7	822.8	822.8	822.8	822.8

COAL HEAT RATE TEST DATA

Plant: White Bluff

Unit: 2

Data Needed For Calculations									
Date	7-6-98	7-6-98	7-7-98	7-7-98	7-7-98	7-8-98	7-8-98	7-8-98	7-6-98
File Name	20225a	20225a	20225b	20225b	20225b	20309a	20309a	20309a	20375a
Gross MW	185	185	253	251	251	327	330	330	387
Aux MW	225	225	228	226	226	227	230	230	237
Cond Back Press	2.18	2.15	2.38	2.38	2.38	2.75	2.74	2.74	2.83
Circ Water Out T	100.14	100.21	102.83	102.83	103.00	107.19	106.88	106.88	108.23
Circ Water In T	92.07	92.19	92.84	92.84	92.96	94.69	94.22	94.22	94.19
Wet Bulb T	77.54	77.0	77.28	77.46	77.46	78.58	78.12	78.12	78.02
Dry Bulb T	85.58	84.18	82.09	82.32	82.32	87.00	85.52	85.52	89.45
Coal Flow pph	205100	202800	331800	334100	334100	407000	413800	413800	479100
Coal HHV Btu/lb	8586	8501	8556	8540	8540	8639	8742	8742	8603
Oil Flow bph									
Oil HHV Btu/bbl									
EMO	163	161				302	308	308	364

Outputs									
Corr Gross MW	185	184.97	252.75	250.75	250.75	327.56	330.0	330.0	387.51
Corr Net MW	102.7	102.37	229.95	228.15	228.15	304.86	307.0	307.0	363.81
Test Net Ht Rate	14007.1	13776	12332	12492	12492	11555	11783	11783	11345
Corr Net Ht Rate	14007.1	13769	12346	12506	12506	11523	11783	11783	11329
Heat In MMBtu	2276.149	2235.640	2838.881	2853.214	2853.214	3516.073	3617.410	3617.410	4121.697
Test Net MW	162.5	162.4	230.2	228.1	228.1	304.3	307	307	363.3

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a = 1130.8766
 b = 7.46415
 c = 0.0023309

COAL HEAT RATE TEST DATA

Plant: WB
 Unit: 2

Data Needed For Calculations									
Date	8/20/98	8/20/98	8/17	8/17	8/17	8/17	8/20	8/20	8/20
File Name	26160a.	26160b.	26225a.	26225b.	26300a.	26300b.	26375a.	26375b.	26375c.
Gross MW	176	175	246	246	326	324	394	394	394
Aux MW	22.6	22.8	18.1	17.9	18.9	18.7	24.8	24.6	24.6
Cond Back Press	2.05	2.02	2.23	2.20	2.64	2.62	2.71	2.70	2.70
Circ Water Out T	98.74	98.21	101.27	100.84	106.43	106.18	105.49	105.31	105.31
Circ Water In T	90.75	90.36	84.96	84.52	85.81	85.73	91.04	90.90	90.90
Wet Bulb T	76.60	75.80	68.45	69.10	69.88	69.80	72.27	72.81	72.81
Dry Bulb T	79.48	78.35	70.37	71.80	70.88	70.73	74.41	75.97	75.97
Coal Flow pph	272200	271700	336000	335900	423600	421400	509300	512000	512000
Coal HHV Btu/lb	8562	8476	8358	8473	8568	8500	8424	8644	8644
Oil Flow bph			Force into pump						
Oil HHV Btu/bbl									

Outputs									
Corr Gross MW	175.70	173.58	239.08	239.71	319.64	317.69	389.13	389.91	389.91
Corr Net MW	153.10	150.78	220.98	221.81	300.74	298.99	364.33	365.31	365.31
Test Net Ht Rate	15193	15131	12323	12477	11818	11732	11621	11981	11981
Corr Net Ht Rate	15223	15274	12708	12831	12068	11980	11776	12115	12115
Heat In MMBtu	2330.58	2302.93	2808.29	2846.08	3629.40	3581.90	4290.34	4425.73	4425.73
Test Net MW	153.4	152.2	227.9	228.1	307.1	305.3	369.2	369.4	369.4

COAL HEAT RATE TEST DATA

Plant: WR

Unit: 2

Data Needed For Calculations									
Date	8/18/98	8/18	8/18	8/29	8/29	8/19	8/19	8/19	8/19
File Name	26450a.	26450b.	26525a.	26600a.	26600b.	26680a.	26680b.	26680c.	26680d.
Gross MW	478	476	548	631	630	711	712	712	712
Aux MW	25.9	25.8	26.6	29.5	29.3	30.8	30.7	30.7	30.7
Cond Back Press	3.05	3.01	3.19	3.66	3.63	4.09	4.05	4.05	4.05
Circ Water Out T	108.72	108.38	109.56	113.46	113.09	116.50	116.17	116.17	116.17
Circ Water In T	91.99	91.75	90.92	92.42	92.11	92.62	92.27	92.27	92.27
Wet Bulb T	73.2	72.73	72.94	73.97	73.97	70.25	70.40	70.40	70.40
Dry Bulb T	76.73	76.10	72.42	75.09	75.66	71.24	71.18	71.18	71.18
Coal Flow pph	578100	576200	646400	770300	773000	863300	867500	867500	867500
Coal HHV Btu/lb	8460	8400	8425	8516	8117	8397	8541	8541	8541
Oil Flow bph									
Oil HHV Btu/bbl									

Outputs									
Corr Gross MW	473.56	471.65	541.65	627.12	626.12	702.64	705.98	705.98	705.98
Corr Net MW	447.66	445.85	515.05	597.62	596.82	671.84	675.28	675.28	675.28
Test Net Ht Rate	10818	10751	10419	10906	10445	10657	10875	10875	10875
Corr Net Ht Rate	10925	10856	10547	10917	10513	10790	10972	10972	10972
Heat In MMBtu	4890.73	4840.08	5432.44	6559.87	6274.44	7249.13	7409.32	7409.32	7409.32
Test Net MW	432.1	450.2	521.4	601.5	600.7	680.2	681.3	681.3	681.3

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

gas basic and
oil basic
avg 1012.950

COAL HEAT RATE TEST DATA

Plant: WB

Unit: 2

Data Needed For Calculations									
Date	8/29	8/20	8/19	8/19					
File Name	267600a.	267600b.	267600a.	267600b.					
Gross MW	793	795	871	871					
Aux MW	33.7	34.1	36.7	37.0					
Cond Back Press	4.59	4.61	5.13	5.10					
Circ Water Out T	119.92	120.09	123.04	122.91					
Circ Water In T	93.52	93.54	93.56	93.43					
Wet Bulb T	73.41	75.20	73.5	72.34					
Dry Bulb T	75.16	78.29	77.14	74.59					
Coal Flow pph	970300	977900	1064000	1067100					
Coal HHV Btu/lb	8333	8198	8403	8364					
Oil Flow bph									
Oil HHV Btu/bbl									

Outputs									
Corr Gross MW	787.70	791.77	866.79	864.76					
Corr Net MW	754.00	757.67	830.09	827.76					
Test Net Ht Rate	10049	10536	10717	10702					
Corr Net Ht Rate	10723	10581	10771	10782					
Heat In MMbtu	8085.51	8016.82	8940.79	8925.22					
Test Net MW	759.3	760.9	834.3	834.0					



ENTERGY

June 2, 1993

**Inter-Office
Correspondence**

TO: Mr. Art Gilreath
FROM: Dennis A. Wall
SUBJECT: 1993 Maximum Operating Ratings Tests: White Bluff Plant

The purpose of the subject tests was to determine the present full load ability of the White Bluff units when operating at a weather condition equal to the past five years' average maximum daily wet bulb temperature of 76 °F. The tests and related calculations have been completed, and the results are attached for your review. Both unit's tests were conducted in accordance with the relevant Entergy test procedure.

The Unit 1 test was conducted on May 12th. The test went normally and resulted in a full load capability of 801 MW, which is 14 MW less than its MDC rating. The limitation was due to "B" PA Fan air flow.

The Unit 2 test was conducted on May 13th. The test went normally and resulted in a full load capability of 833 MW, which is 11 MW less than its MDC rating. The limitation was due to "A" ID Fan suction pressure.

If you need any additional information, please contact me at extension 7021.

DAW/dw

cc: Mr. Mickey Cox
Mr. Max Halbert
Mr. Tom Odenthal
Mr. Ron House
Mr. Gary Davis

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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007654

White Bluff Plant
Unit 1

Maximum Operating Ratings Calculations

06-03-1993 15:40:23

MDC CORRECTIONS FOR WHITE BLUFF - 1

MEASURED TEST INPUTS FROM FILE w1051293.mdc

Average Gross Generation	852.50	MWe
Average Auxiliary Usage	37.60	MWe
Average Reactive Power	50.50	MVAR
Average Generator H2 Pressure	64.04	PSIG
Average Condenser Vacuum	25.62	IN-HG
Average Barometric Pressure	29.50	IN-HG
Average Hot Water Temperature from the Condenser	118.92	DEG F
Average Cold Water Temperature to the Condenser.....	91.98	DEG F
Average Ambient Wet Bulb Temperature	59.98	DEG F
Average Ambient Dry Bulb Temperature	69.76	DEG F
Computed Relative Humidity	56.72	PCT
Average Turbine Throttle Flow	5776569.00	LBM/HR
Average Initial Pressure	2475.06	PSIG
Average Initial Temperature	1007.23	DEG F
Average Hot Reheat Temperature	1008.62	DEG F

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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007656

BACKPRESSURE CORRECTION RESULTS FOR WHITE BLUFF - 1

Cooling Tower Circulating Water Flow Rate	341000 GPM
Cooling Tower Range	26.94 DEG F
Design Cold Water Temperature	85.40 DEG F
Design Maximum Cold Water Temperature	94.73 DEG F
Average Maximum Condenser Cold Water Temperature	101.31 DEG F
Test Backpressure	3.88 IN-HG
Saturation Pressure @ AMCCWT	4.95 IN-HG
Change in Heat Rate from Test Backpressure to 4.5 In-HG	-0.92 %
Change In Heat Rate From AMCCWT Saturation Pressure to 4.5 In-HG	0.76 %
Change in Heat Rate from Test to AMCCWT Backpressure	1.70 %
Change in KW Load from Test to AMCCWT Backpressure	-1.67 %
BACKPRESSURE CORRECTION DIVISOR	1.0167

Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007657

INITIAL PRESSURE CORRECTION RESULTS FOR WHITE BLUFF - 1

The Test Initial Pressure was between the design value (2400 psig) and the 5 % overdesign value (2520 psig). This is the allowable operating range for this unit (per General Electric), therefore NO CORRECTION TO GENERATION WILL BE MADE.

Change in KW Load for Initial Pressure 0.00 %

INITIAL PRESSURE CORRECTION DIVISOR 1.0000

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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007658

INITIAL TEMPERATURE CORRECTION RESULTS FOR WHITE BLUFF - 1

The Test Initial Temperature is within 1% of the design value (1000 F).
In accordance with the Entergy Test Guidelines, NO CORRECTION WILL BE
MADE IN THIS CASE.

Change in KW Load for Initial Temperature 0.00 %
INITIAL TEMPERATURE CORRECTION DIVISOR 1.0000

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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007659

HOT REHEAT TEMPERATURE CORRECTION RESULTS FOR WHITE BLUFF - 1

The Test HRH Temperature was within 1% of the design value (1000 F).
In accordance with the Entergy Test Guidelines, NO CORRECTION WILL
BE MADE IN THIS CASE.

Change in KW Load for Hot Reheat Temperature 0.00 %

HOT REHEAT TEMPERATURE CORRECTION DIVISOR 1.0000

Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007660

SUMMARY OF CORRECTION CALCULATIONS FOR WHITE BLUFF - 1

Product of Correction Factors	1.0167
Test Gross Generation	852.50 MW
Corrected Gross Generation	838.47 MW
Test Net Generation	814.90 MW
Corrected Net Generation	800.87 MW
MAXIMUM CAPABILITY (per summer test guidelines)	801 MW

Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007661

White Bluff Plant
Unit 2

Maximum Operating Ratings Calculations

Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007662

06-03-1993 15:40:35

MDC CORRECTIONS FOR WHITE BLUFF - 2

MEASURED TEST INPUTS FROM FILE w2051393.mdc

Average Gross Generation	879.00	MWe
Average Auxiliary Usage	34.30	MWe
Average Reactive Power	22.22	MVAR
Average Generator H2 Pressure	69.15	PSIG
Average Condenser Vacuum	26.00	IN-HG
Average Barometric Pressure	29.50	IN-HG
Average Hot Water Temperature from the Condenser	114.63	DEG F
Average Cold Water Temperature to the Condenser.....	87.04	DEG F
Average Ambient Wet Bulb Temperature	62.76	DEG F
Average Ambient Dry Bulb Temperature	80.40	DEG F
Computed Relative Humidity	36.43	PCT
Average Turbine Throttle Flow	5947420.00	LBM/HR
Average Initial Pressure	2524.97	PSIG
Average Initial Temperature	982.65	DEG F
Average Hot Reheat Temperature	1000.73	DEG F

Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007663

BACKPRESSURE CORRECTION RESULTS FOR WHITE BLUFF - 2

Cooling Tower Circulating Water Flow Rate	341000	GPM
Cooling Tower Range	27.59	DEG F
Design Cold Water Temperature	88.63	DEG F
Design Maximum Cold Water Temperature	96.81	DEG F
Average Maximum Condenser Cold Water Temperature	95.22	DEG F
Test Backpressure	3.50	IN-HG
Saturation Pressure @ AMCCWT	4.35	IN-HG
Change in Heat Rate from Test Backpressure to 4.5 In-HG	-1.32	%
Change In Heat Rate From AMCCWT Saturation Pressure to 4.5 In-HG	-0.22	%
Change in Heat Rate from Test to AMCCWT Backpressure	1.11	%
Change in KW Load from Test to AMCCWT Backpressure	-1.10	%
BACKPRESSURE CORRECTION DIVISOR	1.0110	

Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007664

INITIAL PRESSURE CORRECTION RESULTS FOR WHITE BLUFF - 2 ---

The Test Initial Pressure was greater than the 5 % overdesign value (2520 psig). This is above the recommended operating range for this unit (per General Electric). Correction from the test value down to the 5 % overdesign value will cause a decrease in in capability. In accordance with the Entergy Test Guidelines, THIS CORRECTION WILL BE MADE.

Reference General Electric Drawing GEZ-3614

Change in KW Load from Test to Standard Initial Pressure	5.10 %
Change in KW Load from 5% Overpressure to Standard Initial Pressure	4.90 %
Change in KW Load from Test to 5% Overpressure	-0.19 %
INITIAL PRESSURE CORRECTION DIVISOR	1.0019

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Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007665

INITIAL TEMPERATURE CORRECTION RESULTS FOR WHITE BLUFF - 2 ---

The Test Initial Temperature is less than the design value (1000 F), by more than 1%. Correction upward would cause a decrease in unit capability. In accordance with the Entergy Test Guidelines, THIS CORRECTION WILL BE MADE.

Correction will be made from the Test Initial Temperature of 982.65 F to the corrected value of 990 F (the lower limit of the 1% margin allowed by the Entergy Test Guidelines).

Reference General Electric Drawing GEZ-3615

Change in KW Load from Test to Standard Initial Temperature	0.17 %
Change in KW Load from 990 F to Standard Initial Temperature	0.10 %
Change in KW Load from Test to 990 F Initial Temperature	-0.07 %
INITIAL TEMPERATURE CORRECTION DIVISOR	1.0007

Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007666

HOT REHEAT TEMPERATURE CORRECTION RESULTS FOR WHITE BLUFF - 2

The Test HRH Temperature was within 1% of the design value (1000 F).
In accordance with the Entergy Test Guidelines, NO CORRECTION WILL
BE MADE IN THIS CASE.

Change in KW Load for Hot Reheat Temperature 0.00 %

HOT REHEAT TEMPERATURE CORRECTION DIVISOR 1.0000

Confidential Business Information

SUMMARY OF CORRECTION CALCULATIONS FOR WHITE BLUFF - 2

Product of Correction Factors	1.0137
Test Gross Generation	879.00 MW
Corrected Gross Generation	867.11 MW
Test Net Generation	844.70 MW
Corrected Net Generation	832.81 MW
MAXIMUM CAPABILITY (per summer test guidelines)	833 MW

Confidential Business Information

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007668

Confidential Business Information

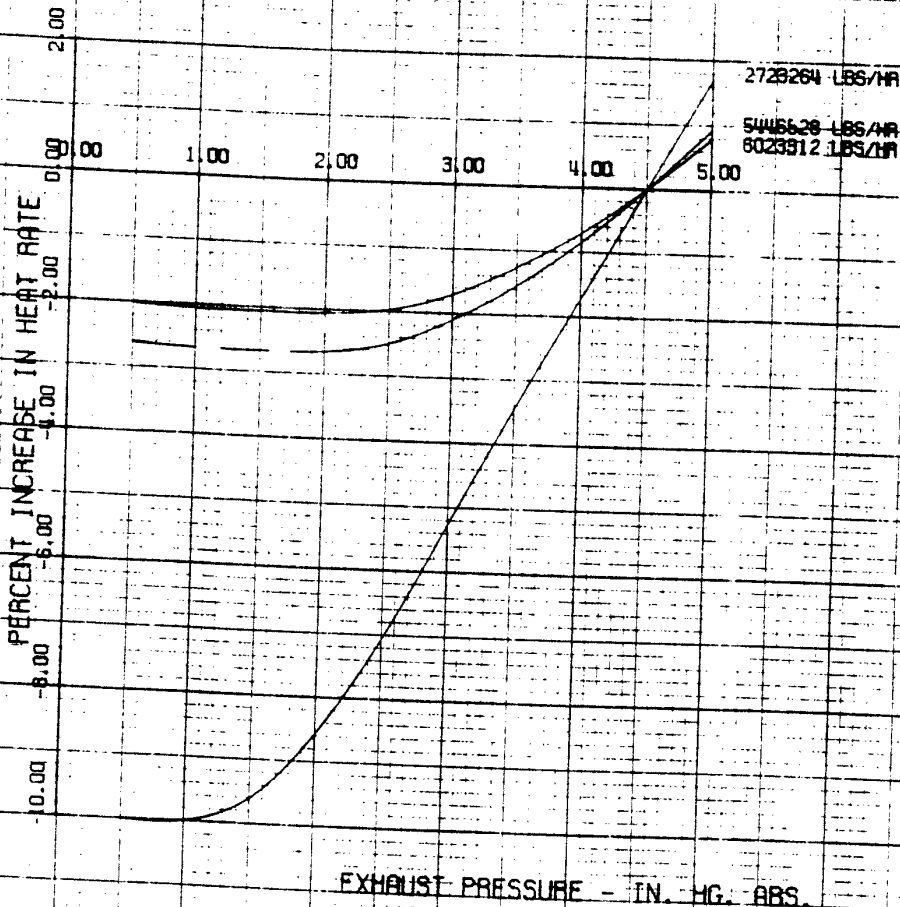
Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007669

EXHAUST PRESSURE CORRECTION FACTORS

800,000 KW AT 4.5 IN. HG. ABS. 0 PCT. NU.
TC4F-33.5 IN. LBS 3600 RPM
2400 PSIG 1000F/1000F

413 HB 650



EXHAUST PRESSURE - IN. HG. ABS.

METHOD OF USING CURVE

THESE CORRECTION FACTORS ASSUME CONSTANT CONTROL VALVE OPENING

THE PERCENT CHANGE IN KW LOAD FOR VARIOUS EXHAUST PRESSURES IS EQUAL TO
(MINUS) PCT INCREASE IN HEAT RATE $100 / (100 + \text{PCT INCREASE IN HEAT RATE})$

THESE CORRECTION FACTORS ARE NOT GUARANTEED

THE CURVE AT A THROTTLE FLOW OF
6023312 IS AT 5 PCT. OVERPRESSURE
OR 2520 PSIG.

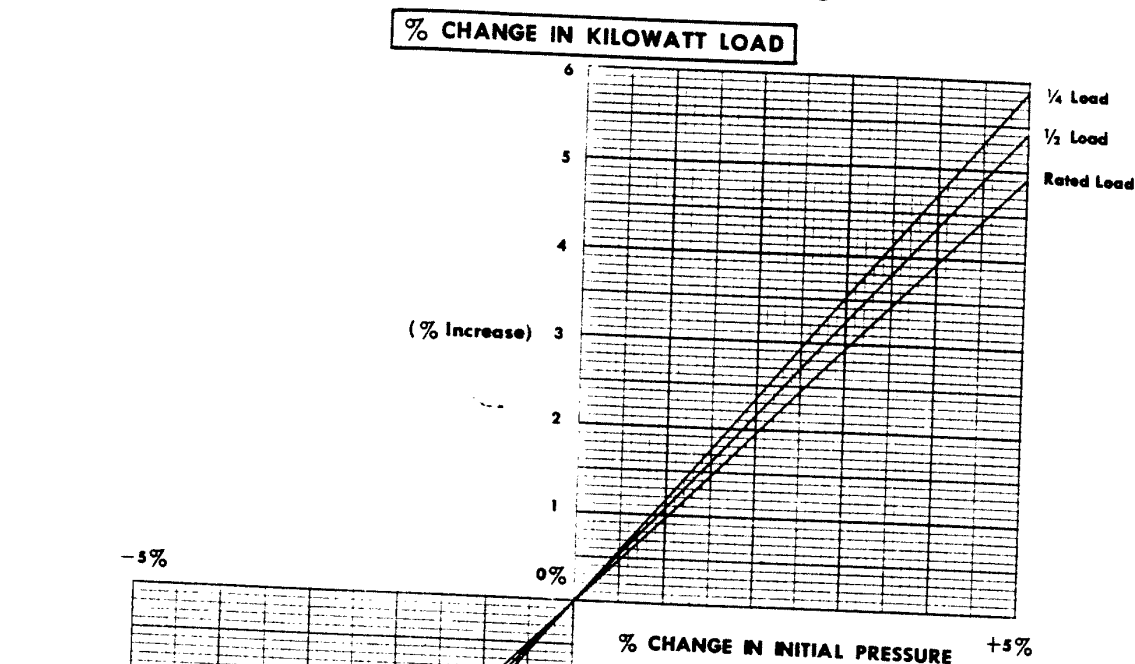
413 HB 650

Confidential Business Information

GENERAL ELECTRIC COMPANY, SCHENECTADY, NEW YORK

WB_00007670

INITIAL PRESSURE CORRECTION FACTORS FOR SINGLE REHEAT UNITS



METHOD OF USING CURVES

These correction factors assume constant control valve opening and are to be applied to heat rates and kilowatt loads at rated steam conditions.

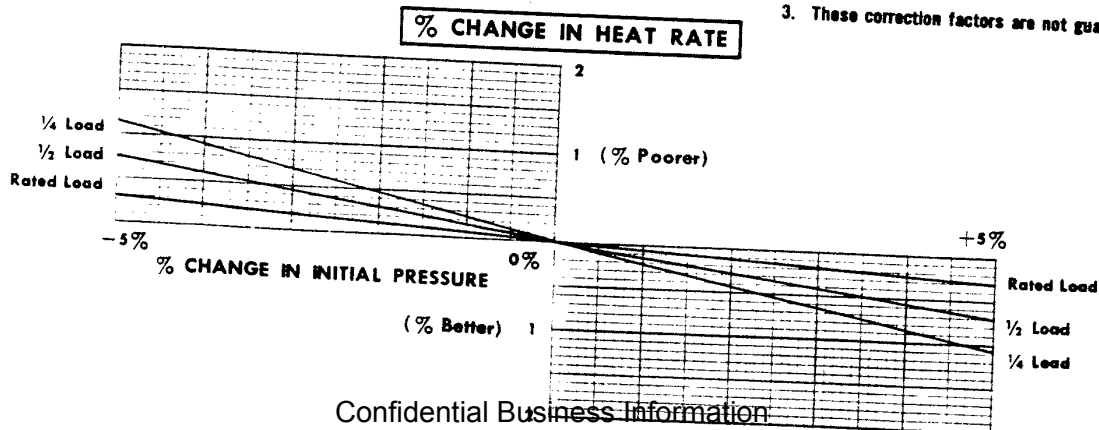
1. The heat rate at the desired condition can be found by multiplying the heat rate at rated conditions by the following:

$$1 + \frac{\% \text{ change in gross heat rate}}{100}$$

2. The kilowatt load at the desired conditions can be found by multiplying the kilowatt load at rated conditions by the following:

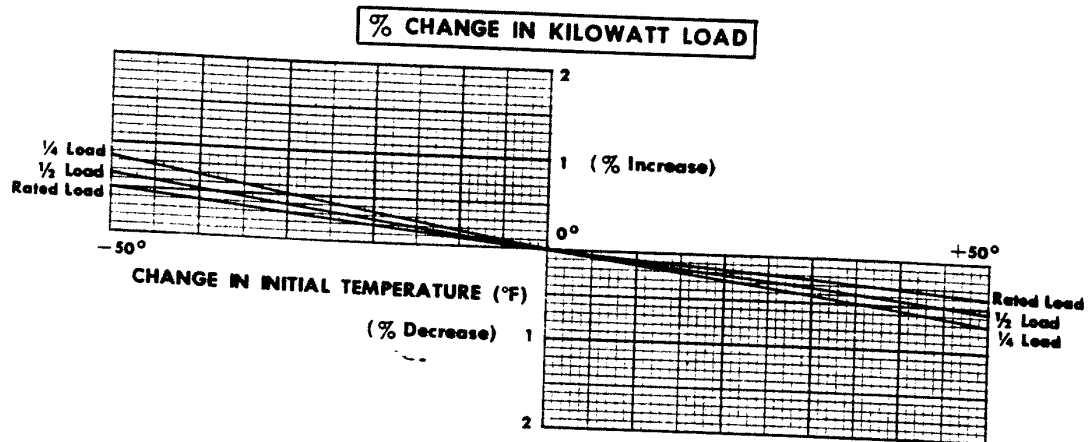
$$1 + \frac{\% \text{ change in kw load}}{100}$$

3. These correction factors are not guaranteed.



Confidential Business Information

INITIAL TEMPERATURE CORRECTION FACTORS FOR SINGLE REHEAT-SUBCRITICAL PRESSURE UNITS



METHOD OF USING CURVES

These correction factors assume constant control valve opening and are to be applied to heat rates and kilowatt loads at rated steam conditions.

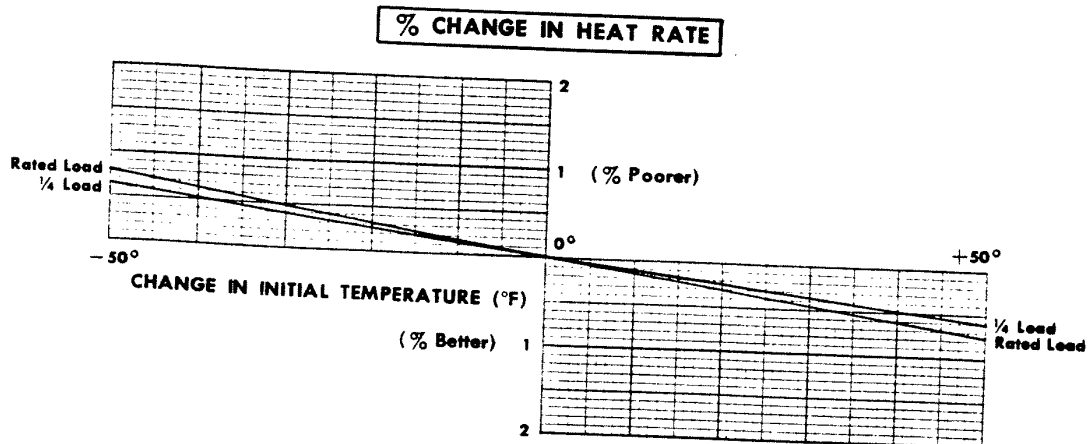
1. The heat rate at the desired condition can be found by multiplying the heat rate at rated conditions by the following:

$$1 + \frac{\% \text{ change in gross heat rate}}{100}$$

2. The kilowatt load at the desired conditions can be found by multiplying the kilowatt load at rated conditions by the following:

$$1 + \frac{\% \text{ change in kw load}}{100}$$

3. These correction factors are not guaranteed.



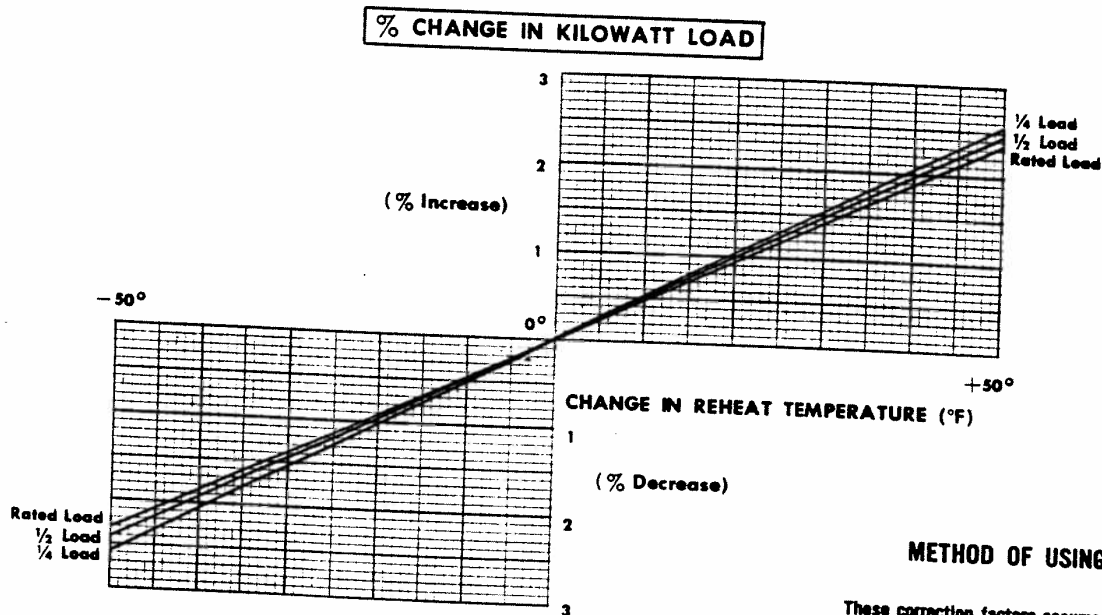
Confidential Business Information

GEZ-3615

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

WB_00007672

REHEAT TEMPERATURE CORRECTION FACTORS FOR SINGLE REHEAT UNITS



METHOD OF USING CURVES

These correction factors assume constant control valve opening and are to be applied to heat rates and kilowatt loads at rated steam conditions.

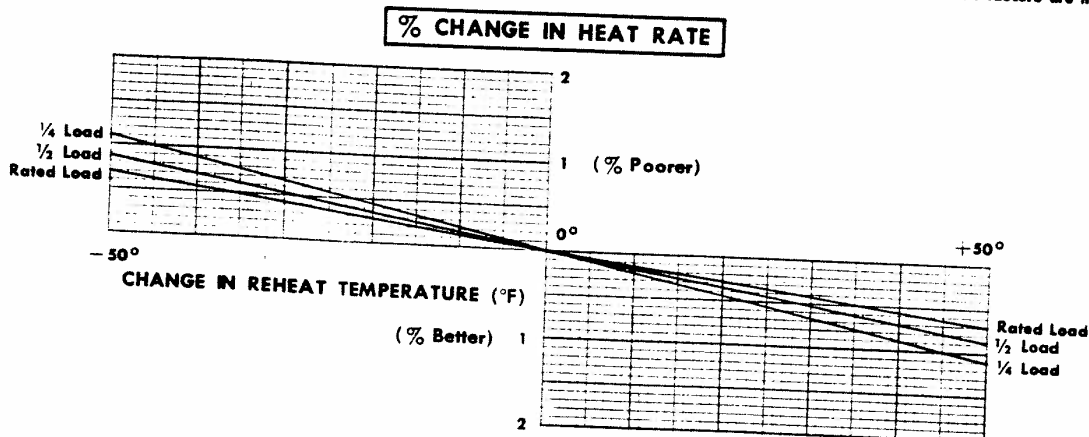
1. The heat rate at the desired condition can be found by multiplying the heat rate at rated conditions by the following:

$$1 + \frac{\% \text{ change in gross heat rate}}{100}$$

2. The kilowatt load at the desired conditions can be found by multiplying the kilowatt load at rated conditions by the following:

$$1 + \frac{\% \text{ change in kw load}}{100}$$

3. These correction factors are not guaranteed.



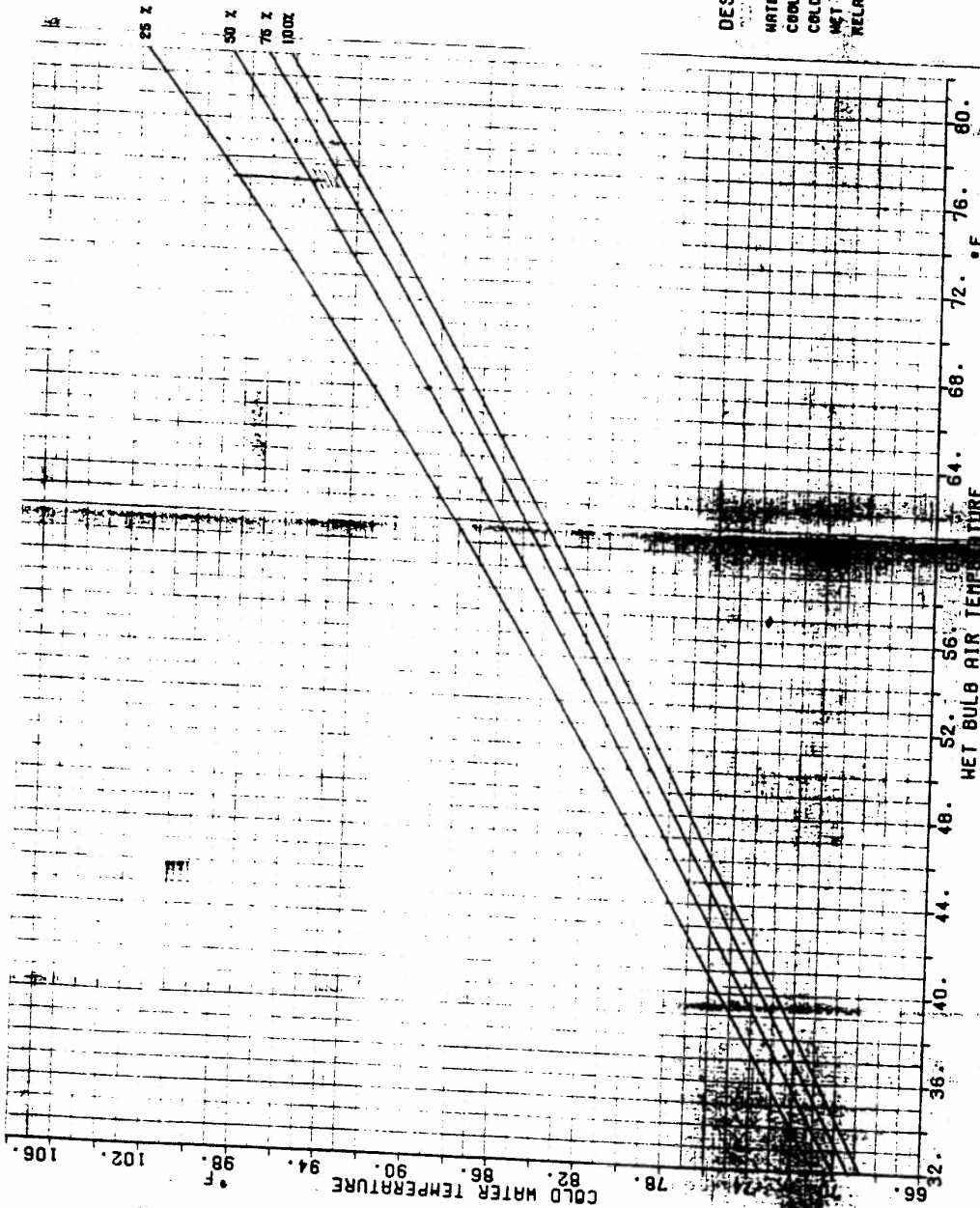
Confidential Business Information

GEZ-3617

Claim Withdrawn. Contains No CBI. 06/29/2016_YD

GENERAL ELECTRIC

WB_00007673



DESIGN CONDITIONS

WATERFLOW 310000 USGPM
 COOLING RANGE 28.10 °F
 COLD WATER 95.00 °F
 WET BULB 78.00 °F
 RELATIVE HUMIDITY 60

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 HAMON COOLING TOWER DIVISION
 BOUND BROOK, NEW JERSEY 08006

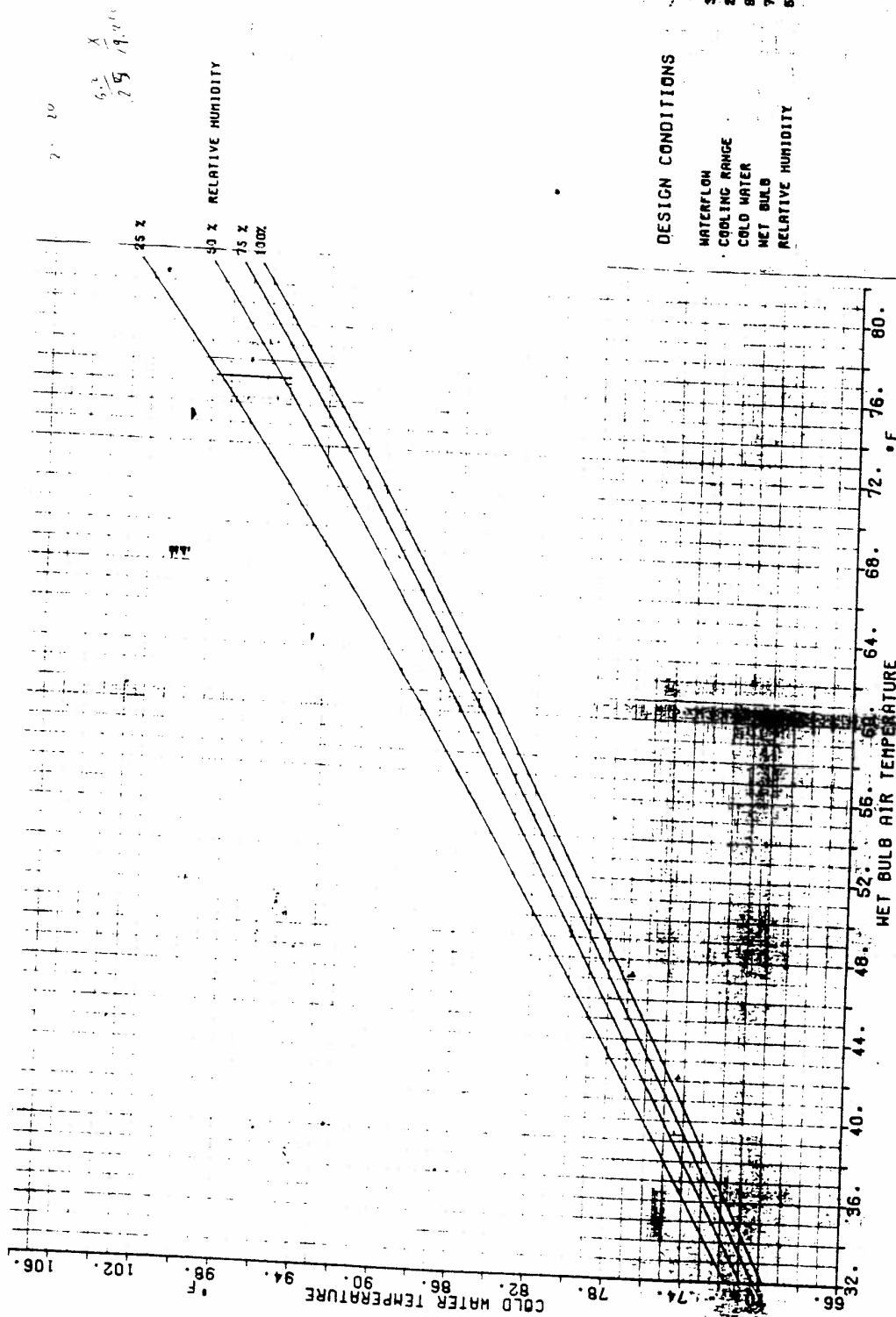
WHITE BLUFF STATION
 CTP 5207 N2

FFA-11-74

708

NATURAL DRAFT COOLING TOWER
 PERFORMANCE CURVES COLD WATER TEMPERATURE IN FUNCTION
 OF WET BULB AIR TEMPERATURE AND RELATIVE HUMIDITY
 WATERFLOW 341000 USGPM
 RANGE 25.00 °F

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DESIGN CONDITIONS

WATERFLOW	310000.	USGPH
COOLING RANGE	28.10	°F
COLD WATER	86.00	°F
WET BULB	78.00	°F
RELATIVE HUMIDITY	60	%

NATURAL DRAFT COOLING TOWER

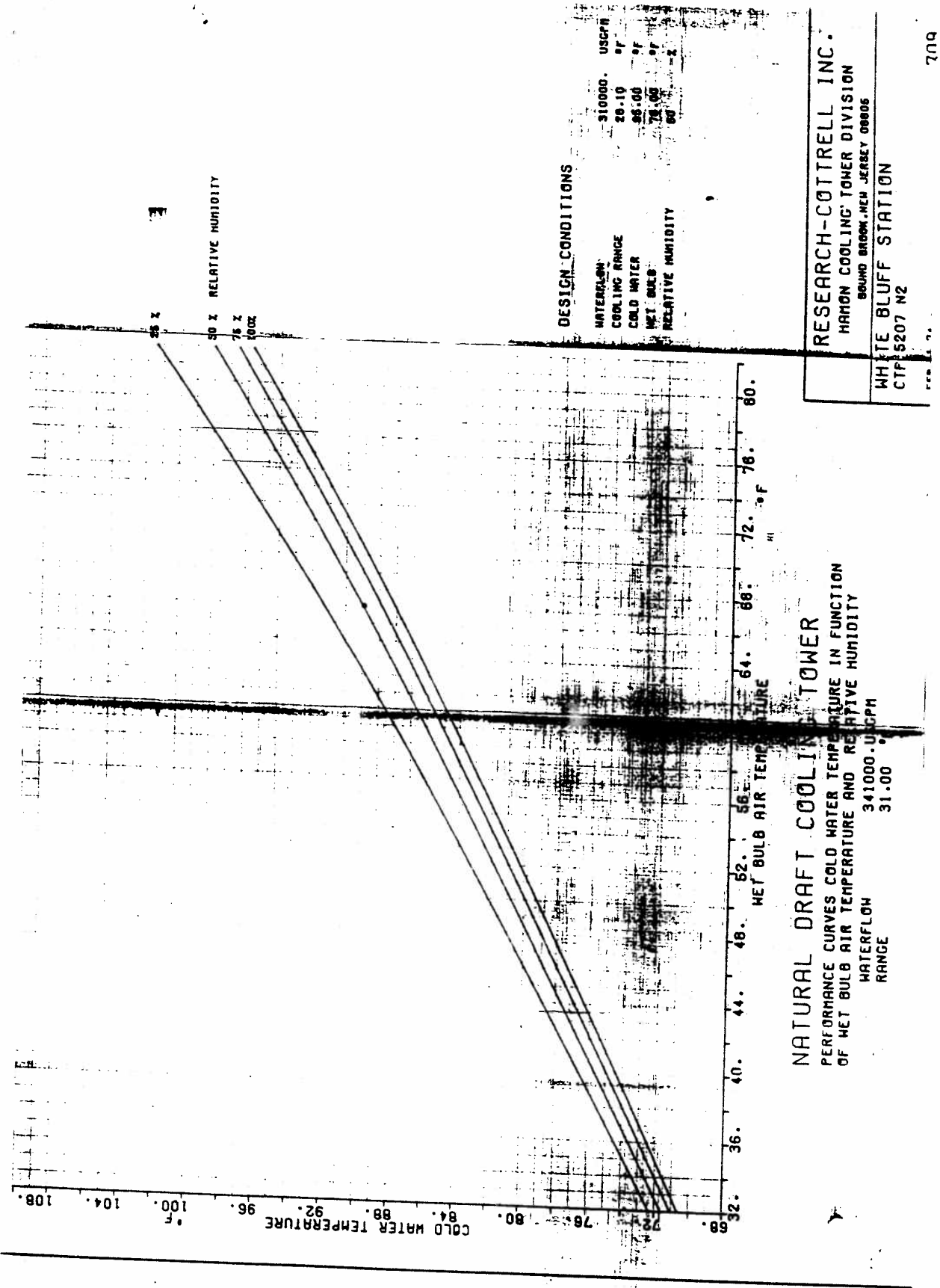
PERFORMANCE CURVES COLD WATER TEMPERATURE IN FUNCTION
OF WET BULB AIR TEMPERATURE AND RELATIVE HUMIDITY

WATERFLOW 341000. USGPH
RANGE 28.10 °F

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HAMON COOLING TOWER DIVISION
BOUND BROOK, NEW JERSEY 08005

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CTP 5207 N2

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